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ABSTRACT

This report of the National Center for Health Statistics presents national estimates of the prevalence of facial acne and other skin lesions among noninstitutionalized youths aged 12-17 years by age, race, sex, geographic region, population size of place of residence, family income, education of parent, overall health, indications of stress, selected health habits, and physiological development. The estimates are based on direct examination findings from the Health Examination Survey of 1966-70 among a national probability sample of 7,514 youths representative of the 22.7 million youths of the U.S. population. Major findings of the report include: (1) only about 28% of U.S. youths 12-17 years of age have essentially normal skin without significant scars or lesions; (2) facial acne is about as prevalent among girls as boys, but tends to start earlier and be less severe in girls; (3) of those affected, only 11% had seen a doctor; (4) white youths are slightly more likely than Negro youths to have moderate to severe facial acne, but less likely to have mild conditions. Extensive reference list, detailed tables of findings, statistical notes, glossary of terms, and survey instruments are included as appendixes. (MB)

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VITAL and HEALTH STATISTICS

Series 11-Number 157

DATA FROM THE NATIONAL HEALTH SURVEY

ED131065

NCHS NATIONAL CENTER FOR HEALTH STATISTICS

Skin Conditions of Youths 12-17 Years

UNITED STATES

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Data from the
NATIONAL HEALTH SURVEY

Series 11
Number 157

Skin Conditions of Youths 12-17 Years

UNITED STATES

Prevalence of facial acne and other skin conditions of youths in the United States by age, sex, race, geographic region, and socioeconomic background as well as in relation to other selected findings from the Health Examination Survey of 1966-70.

DHEW Publication No. (HRA) 76-1639

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Health Resources Administration
National Center for Health Statistics
Rockville, Md. August 1976

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COOPERATION OF THE BUREAU OF THE CENSUS

In accordance with specifications established by the National Center for Health Statistics, the Bureau of the Census, under a contractual agreement, participated in the design and selection of the sample, and carried out the first stage of the field interviewing and certain parts of the statistical processing.

Vital and Health Statistics-Series 11-No. 157

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SKIN CONDITIONS OF YOUTHS

Jean Roberts and Jacqueline Ludford, *Division of Health Examination Statistics*

INTRODUCTION

This report presents estimates of the prevalence of facial acne and other skin conditions of youths age 12-17 years in the noninstitutionalized population of the United States, based on direct examination findings from the Health Examination Survey of 1966-70 among a national probability sample representative of the 22.7 million youths in that segment of the population. Findings are analyzed by age, race, sex, geographic region, size of place of residence, and in relation to other selected parts of the examination.

The Health Examination Survey is one of the major programs of the National Center for Health Statistics which was authorized through the National Health Survey Act of 1956 by the 84th Congress as a continuing Public Health Service responsibility to determine the health status of the population.[1]

The principal health survey programs of the National Center for Health Statistics include the Health Examination, Health Interview, Health Manpower and Facilities, and Health Resources Utilization. The Health Interview Survey, which collects health information from samples of people by household interview, primarily studies the impact of known illness and disability on the lives of people. The Health Manpower and Facilities programs obtain information through surveys of hospitals, nursing homes, and other resident institutions, and the entire range of personnel in the health occupations. The Health Resources Utilization surveys obtain information on the extent of health facility and service utilization. In the Health Examination Survey data are collected through direct physical examinations, tests, and measurements performed on carefully selected nationwide probability samples of the population. This latter system, in addition to providing the most efficient way of obtaining actual diagnostic data on the prevalence of specified medically defined illness, is the only one of the survey programs to secure information on unrecognized or undiagnosed conditions as well as a variety of physical, physiological, and psychological measures within the population. Medical history, demographic, and socioeconomic data are also obtained on the sample population under study, making possible the interrelation of these data with the examination findings for those examined.

The Health Examination Survey is planned as a continuous series of separate programs called "cycles." Each cycle is limited to certain aspects of health within specified segments of the U.S. population. The first cycle in 1960-62 was designed primarily to provide data on the prevalence of certain chronic diseases and on the distribution of various physical and physiological measures in a defined adult population.[2,3]

For the second cycle in 1963-65 the target population was the noninstitutionalized children age 6-11 years. The examination and medical histories for it were focused primarily on health factors related to growth and development.[4,5]

The findings on which this report is based are from the third cycle which was designed, as in the preceding children's program, to obtain data on the health status of the youth population with particular emphasis on factors and conditions related to their growth and development. For this program a probability sample of the noninstitutionalized youths 12-17 years in the United States was selected and examined. The questionnaires, examination content, and procedures were similar to those in the children's

program, so as to obtain comparable information for the entire age range of childhood through adolescence, but were supplemented to obtain data specifically related to adolescent health. Included were a physical examination given by a pediatrician assisted by a nurse, an examination by a dentist, tests administered by a psychologist, and a variety of tests and measurements by laboratory, X-ray, and health technicians. The survey plan, sample design, examination content, and operation of this survey program have been described in a previous report.[6]

Field collection operations for the youths' cycle started in March 1966 and were completed in March 1970. Of the 7,514 youths selected in the national probability sample, 6,768 or 90 percent were examined. This national sample is representative, and the examined group is closely representative, of the 22.7 million civilian noninstitutionalized youths 12-17 years in the United States with respect to age, sex, race, geographic region, population size of place of residence, and rate of change in size of place of residence from 1950 to 1960.

As in the preceding program among children, examinations in the youths' cycle were done consecutively in 40 different locations throughout the United States. During his single visit each youth was given a standardized examination by the medical team in the mobile units specially designed for use in the survey. The only exception to this single visit was for girls with urine specimens found positive for bacteriuria who were brought back for repeat urine tests. Prior to the examination, demographic and socioeconomic data on household members as well as medical history, behavioral, and related data on the youth to be examined were obtained from his parents. In addition, a Health Habits and History form was completed by the youth before he arrived for the examination and a Health Behavior form was completed by him while in the examination center. Ancillary data were requested from the school last attended by the youth including his grade placement, the teacher's rating of his behavior and adjustment, and health problems known to his teacher. A birth certificate was obtained for each youth to verify his age and provide information related to his condition at birth.

Statistical notes on the survey design, reliability of the data, and sampling and measurement error are in appendix I. Definitions of the demographic and socioeconomic terms are in appendix II.

DATA SOURCES

Medical Histories

Data as specified below from the four available sources of medical history regarding the youth's present health status, dietary habits, degree of tension or emotional problems, and problems with sleep and allergies are considered in this report as they may relate to examination findings of acne or other skin conditions.

Parent Questionnaire.—At the time of the initial visit to the sample household, the census interviewer left a Medical History of Youth form with the parent or guardian to be completed for each eligible youth.

A few days later the Health Examination Survey representative (HER) visited the household and reviewed the self-administered medical history for completeness and consistency. If the form was not completed or only partially so, the HER attempted, with the parent's help, to complete it at that time.

Included in this report as they may relate to skin findings are data on the parent's rating of the youth's present health status; regular use of medicine; history of hay fever, asthma, or other allergies; degree of nervousness; amount of food eaten; and fussiness of eating habits (appendix III, Nos. 11, 12, 18, 50, 53, 54).

Youth Questionnaires.—At the time of the HER's visit to the household, she left a Health Habits and History form with instruction that it be completed by the eligible youth and returned to the survey in the envelope provided before the youth arrives for the scheduled examination.

From this health history form the youth's responses to questions on present health status, regular use of medication, frequency of trouble sleeping, frequency of nightmares, recent sleepwalking, history regarding acne, and amount of food eaten are included. (Nos. 4, 6, 30, 31, 32, 33.)

The youth's rating of his own degree of

tension from the Health Behavior questionnaire which he completed while in the examination center is also used. (No. 11.)

School Questionnaires.—At the time the sample youths were picked up from or returned to the schools attended, the escorts left a Supplemental Information From School form, for each sample youth in the school, with the school principal, who had been asked to have each form completed by the youth's teacher or whoever he believed would be the best informed respondent. In locations visited during the summer months when school was not in session, the questionnaires were mailed to the school in the early fall with a request that they be completed and returned.

Relevant data from that schedule are the teacher's assessment of the youth's need for special resources for the emotionally disturbed and the degree of adjustment. (Nos. 8e and 9.)

Physician Examination

The examining physician with the survey team was either a senior resident or fellow in pediatrics from a selected medical center, school, or hospital who had been given special training in the standardized physical examination used in the survey, including brief training in special areas of adolescent medicine particularly with respect to maturation grading, otolaryngology, and dermatology. On the day before the scheduled examination, the completed Medical History of Youth and the Health Habits and History-Youth were reviewed by the examining physician, who noted items which might require further follow-up in the course of the examination.

The physician's examination included an eye, ear, nose, and throat examination; check for goiter; musculoskeletal and neurological evaluation; cardiovascular examination; inspection for and grading of facial acne; assessment of sexual maturation; and an appraisal of nutrition. During the examination the nurse drew a sample of blood (for later determination of hematocrit and hemoglobin, levels of cholesterol, uric acid, serological tests for syphilis, protein-bound iodine, and genotype determinations of blood groups), obtained the three blood pressures (supine and sitting position after the examination), and for the female examinees completed the menstrual history questionnaire and collected a urine specimen for culture of bacteriuria.

Then the examining physician made a summary of his findings based on his training and clinical judgment, the youth's medical history, his own examination, and the tests and other data available to him from the other examination procedures. From these he decided whether or not the adolescent was basically healthy, developing satisfactorily, and growing normally, excluding from consideration mild, transient problems such as minor cuts or bruises, fractured bones that healed without complications, and colds. Criteria regarding findings affecting normal growth were interpreted broadly to include all but the minimal and questionable findings which did not appear to offset normal growth, development, or function, as previously described.[6,7]

In the examination of the skin the physician inspected the face and neck for acne. The following scale from Pillsbury's *Textbook of Dermatology* [8] was used in grading acne found on the face and neck, without considering body or trunkal acne:

- Grade 0 - No acne.
- Grade I - Sparse to profuse comedones with little or no inflammatory reaction.
- Grade II - Acne consisting of comedones and superficial small pustular and inflammatory lesions at the follicular orifice. This process is usually confined to the face.
- Grade III - Acne characterized by comedones, small pustules, and a tendency to deeper inflamed lesions. These inflammatory nodules are not definitely related to the follicular pore and apparently result from rupture of the sebaceous duct, with extrusion of sebum into the skin tissue, and from inflammation caused by chemical and bacterial factors. This grade represents a true disease rather than a passing cosmetic change.

● Grade IV - Extensive secondarily infected cystic acne (acne conglobata). The face and neck may be severely involved, with extensive lesions on the upper trunk. Some extension up into the scalp on the posterior neck may be noted. Coalescence of lesions occurs, with production of boggy canalized sinuses. The resulting scarring may be markedly distorting, with cord-like bands and hypertropic ridges.

In addition to recording the grade of facial acne, the physician described any other skin conditions found on the Physical Examination form. Any of these skin conditions which the examining physician considered as interfering with the youth's normal functions, significant enough to be cosmetically traumatic, or evidence of pathology which accounted for a lag in growth and development such as a scar from heart surgery, were also recorded on the Summary of Diagnostic Impressions form (appendix III).

The other skin findings included extensive scars and birthmarks as well as active pathologic processes. An adaptation of the *Eighth Revision, International Classification of Diseases* [9] stressing etiology rather than system was used for classifying these other skin conditions in this report.

While the Physical Examination form (appendix III) provided space for the physician to record a description of other skin findings, field manual instructions described only the system to be used in grading facial acne. Hence the recording of other skin findings must be assumed to be less complete than that for facial acne.

FINDINGS

Among noninstitutionalized youths age 12-17 years in the United States only an estimated 27.7 percent or 6.3 million were found to have essentially normal skin, without significant lesions or scars, based on physical examinations among the national probability sample of youths in the Health Examination Survey of 1966-70.

Skin conditions of any type were identified among 72.3 percent or 16.4 million youths (table 1 and appendix I). This includes 68.1 percent or 15.5 million youths with facial acne, 0.7 percent or 0.2 million youths with body acne, and 13.4 percent or 3.1 million youths with nonacne skin conditions. About one youth in 10 (9.8 percent of all youths or 13.6 percent of those with some skin problem) had more than one type of skin condition.

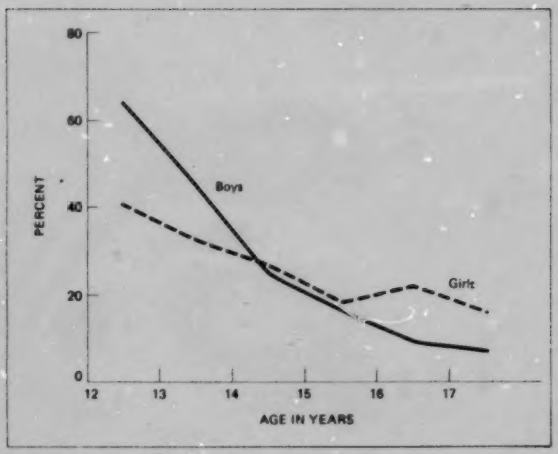

Figure 1. Percent of youths with no abnormal skin conditions on examination by age and sex: United States, 1966-70.

The proportion of youths with essentially normal skin decreases rapidly with age from 53 percent at age 12 years to 12 percent at age 17 years. The decline is more rapid and consistent among boys than girls (figure 1).

General Prevalence

The prevalence of *facial acne*, the most frequently occurring of the skin conditions, increases with age more rapidly among younger than older youths, from 39.0 per 100 at age 12 years to 86.4 per 100 at age 17 years. Such conditions are slightly more prevalent among girls (69.8 per 100) than boys (66.4 per 100). However, the increase in prevalence rates with age is more rapid and consistent among boys than girls.

Facial acne is substantially less prevalent among younger boys than girls. At 12 years, only one-fourth of the boys compared with more than half (53 percent) of the girls had facial acne (figure 2). By the midteens—ages 14 and 15 years—the sex difference in the rates is negli-

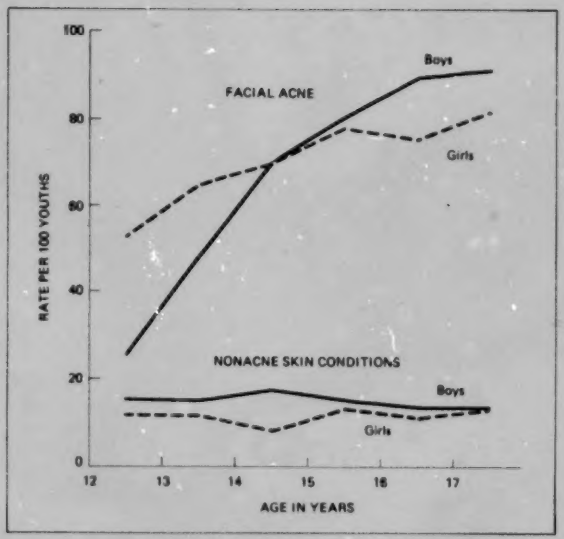

Figure 2. Prevalence rates for facial acne and nonacne skin conditions on examination among youths by age and sex: United States, 1966-70.

gible, while by 16 and 17 years boys are more likely than girls to have such a condition.

Among youths who have facial acne, the condition is more likely to be limited to comedones (blackheads) with little or no inflammatory reaction—nearly three-fifths were classified as grade I—than more severe inflammatory lesions (table 2).

The facial acne, when present, tended to be more severe among boys than girls. In nearly half of the boys with facial acne (49 percent), compared with about one-third (34 percent) of the girls, the conditions were moderate to severe (graded II-IV) with extensive inflammatory lesions. Among boys with facial acne the proportion that had moderate or severe conditions increased five-fold with age from 12 percent at 12 years to 62 percent at 17 years, while among girls there was less than a two-fold increase from 23 percent at 12 years to 39 percent at 17 years (figure 3).

For *nonacne skin lesions* the prevalence is slightly higher among boys than girls (15 per 100 compared with 12 per 100) but shows no consistent trend with age among either group (table 1 and figure 2).

The most frequently mentioned of these nonacne conditions were scars and nevi (table 3).

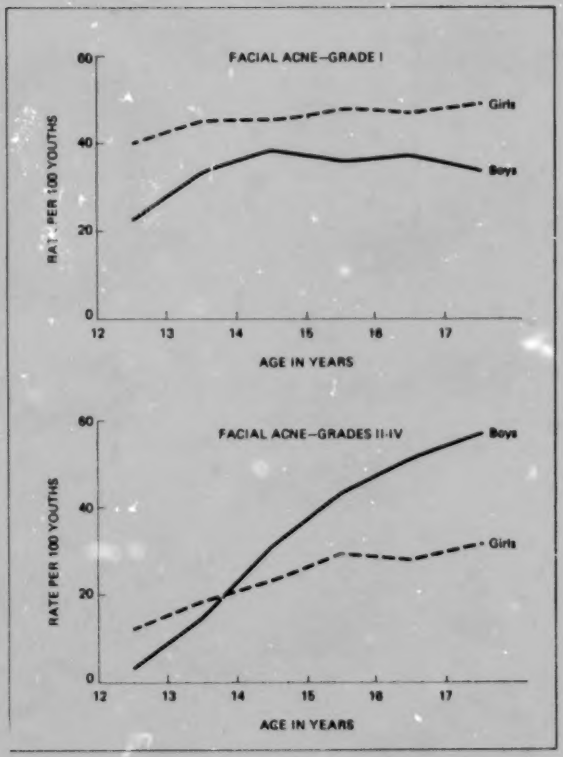

Figure 3. Prevalence rates for mild (grade I) and moderate-severe (grades II-IV) facial acne on examination among youths by age and sex: United States, 1966-70.

The prevalence rates of 5.91 per 100 for scars, of 1.20 per 100 for nevi, and the lower rates for the remainder of the conditions among this 12-17 year old population are probably lower than the actual prevalence but likely to represent the most severe of these conditions among adolescents because the examining physicians, as previously indicated, were to describe only those which would be considered as interfering with the youths' normal functions, significant enough to be cosmetically traumatic, or give evidence of pathology which would account for a lag in growth and development, such as a scar from heart surgery.

Of the scar conditions identified 17 percent were reported as due to trauma, 14 percent to burns, and the remaining 69 percent to operations or other and unspecified causes. About 7 percent of the scars showed enlarged or raised keloid formations.

The prevalence rate for tumors, growths, and birthmarks was 2.12 per 100 youths. Nevi (circumscribed stable malformations of the skin presumed not due to external causes) accounted for over half of these conditions. The rates for the remainder of the less prevalent nonacne skin conditions identified on examination are included in table 3 because of general interest in some of them even though the precision of these national estimates is substantially below that for the more prevalent conditions.

Previously Known Conditions

In the Health Habits and History form, the youths indicated whether or not they had acne. From that history 49.1 percent reported they did, the proportion being slightly higher among boys (49.7 percent) than girls (48.5 percent). This is substantially lower than the rate of 68.1 per 100, based on examination findings of facial acne, but exceeds the proportion rated on examination as having moderate to severe facial acne (28.3 per 100).

Since a variety of factors have been reported to contribute to the production of acne including endocrine, dietary, emotional, traumatic, and bacterial factors,[10] some lack of agreement would be expected between the physician's findings at the time of the examination and the youth's statement. There was physician confirmation of the presence of acne for nearly 88 percent of youths who reported they had this condition. Among youths who said they did not have acne (table 4), the physician found and graded the severity of acne for nearly half (49 percent). In these latter cases the condition was usually a mild one—limited to comedones or blackheads with minimal or no inflammatory reaction (grade I) for nearly 80 percent of youths who said they did not have acne. The agreement as well as the lack of it was generally similar among boys and girls.

Age of onset.—While the examination findings indicate that the prevalence of facial acne among youths increases with age, the fact that nearly half of the 12-year-olds had acne would indicate that the age of onset for this condition would frequently occur below 12 years of age.

In their medical history the youth was asked at what age acne started, if he or she said they had it. More than half stated the condition started at 12 or 13 years (24 percent and 28 percent, respectively) with the median age being 13.3 years (table 5).

The onset tended to be later in boys than girls. Among boys nearly 55 percent stated their acne condition had started at 13 or 14 years (29 percent and 25 percent, respectively) with the median age of 13.7 years, while among girls the concentration was at 12 and 13 years (about 28 percent in each year) with the median of 12.9 years or about 9 months earlier than for boys.

Effect on youths.—Although 84.2 percent of youths age 12-17 years who recognized that they had acne indicated their condition bothered or worried them, only 58.3 percent said they were using any treatment for it (presumably mostly over-the-counter topical preparations) and only 11.4 percent had seen a doctor about it. Boys were slightly less likely to be bothered by their acne condition (81.5 percent) than girls (87.0 percent), to use any treatment for it (54.8 percent of boys, 62.0 percent of girls with acne), or to see a doctor about it (10.6 percent compared with 12.3 percent for girls) (figure 4).

As might be expected, there tended to be an increase in concern about the acne condition with the increasing severity of the disorder (figure 5). Among youths reporting they had acne and for whom the presence of the condition was confirmed

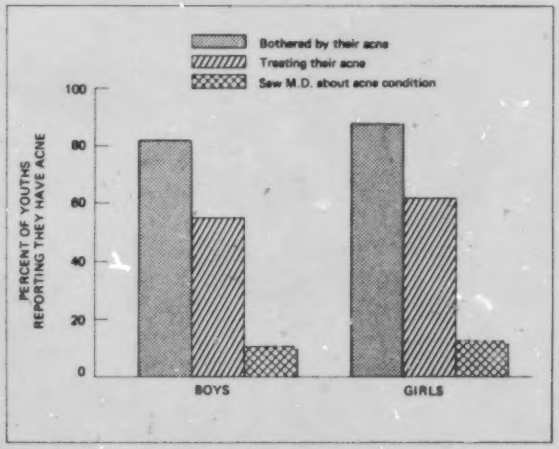

Figure 4. Proportion of youths 12-17 years of age reporting they have acne who are bothered by the condition, are treating it, and have sought medical advice about it: United States, 1966-70.

Table A. Percent distribution of degree to which youths age 12-17 years reported being "bothered" by acne, by grade of facial acne as determined by examining physician: United States, 1966-70

Physicians grading of facial acne	Number with acne by both MD and youth (in thousands)	Total	Degree acne "bothers" youth			
			"A lot"	"Some"	"A little"	"Not at all"
		Percent distribution				
All grades	9,750	100.0	14.6	36.5	34.5	14.4
Grade I	4,545	100.0	10.2	34.5	37.2	18.1
Grade II	4,642	100.0	17.8	37.1	33.8	11.3
Grade III	517	100.0	23.1	47.0	20.0	9.9
Grade IV	46	100.0	19.1	64.5	11.6	4.8
		Standard error				
All grades	-	-	0.64	0.94	1.03	0.76
Grade I	-	-	0.58	1.93	1.74	1.10
Grade II	-	-	1.00	0.91	1.08	0.97
Grade III	-	-	3.41	4.35	3.57	2.99
Grade IV	-	-	6.34	11.91	8.39	4.90

on examination, 14.6 percent stated the acne bothered them quite a lot; 36.5 percent indicated it bothered them some but not too much, 34.5 percent said it bothered them very little, and 14.4 percent were unconcerned about it. The proportion bothered some or a lot generally increased with the severity grade of facial acne while the proportion bothered very little or not at all even more consistently decreased with the severity of the condition (table A).

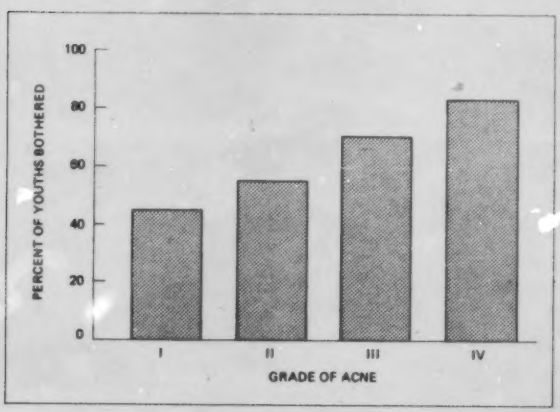

Figure 5. Proportion of youths 12-17 years of age who are bothered "some" or "a lot" by their acne condition by physician's grading of facial acne: United States, 1966-70.

Demographic-Socioeconomic Trends

Race.—The prevalence of *facial acne*, as determined on examination, is slightly greater among white than Negro youths age 12-17 years in the United States (table 6). For both racial groups the proportion with this condition more than doubled with age during adolescence—from 39 per 100 at 12 years to 87 per 100 at 17 years among white youths and from 38 per 100 to 82 per 100 for Negro youths.

The increase in the prevalence rates with age during those particular years (12-17) is more rapid among both white and Negro boys than among girls of either race. At 12 and 13 years the prevalence of facial acne among girls exceeds that among boys of both races. Among older youths—ages 15-17 years for white and 16-17 years for Negro youths—the rates for boys are the greater.

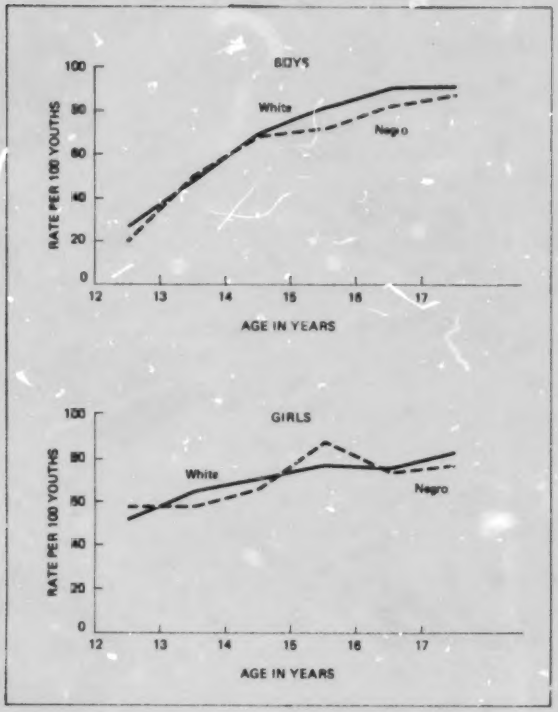

Figure 6. Prevalence rates for facial acne on examination among white and Negro youths by age and sex: United States, 1966-70.

Relatively more white than Negro boys are affected across the 12-17 year age range, except at age 13, the differences being greater from 15-17 years though not large enough to be considered statistically significant. Among girls the pattern of racial differences in the rates is less consistent across the age range (figure 6) and the rates for the total 12-17 year group are nearly identical.

White youths are slightly more likely than Negro youths to have moderate to severe facial acne and less likely to have mild conditions limited to comedones. What racial differences exist in these severity rates are primarily among boys (figure 7 and tables 7 and 8). The moderate to severe grades of facial acne are more prevalent among white than Negro boys across the age range, except at 13 years, and among white than Negro girls except at the extremes of the range—12 and 17 years.

Nonacne skin lesions are more prevalent among Negro than white youths, except at 12 years where there is a negligible difference (table 6). This racial pattern is consistent among boys 13-17 years and girls 12-17 years. Among both racial groups the rates are somewhat lower among girls than boys.

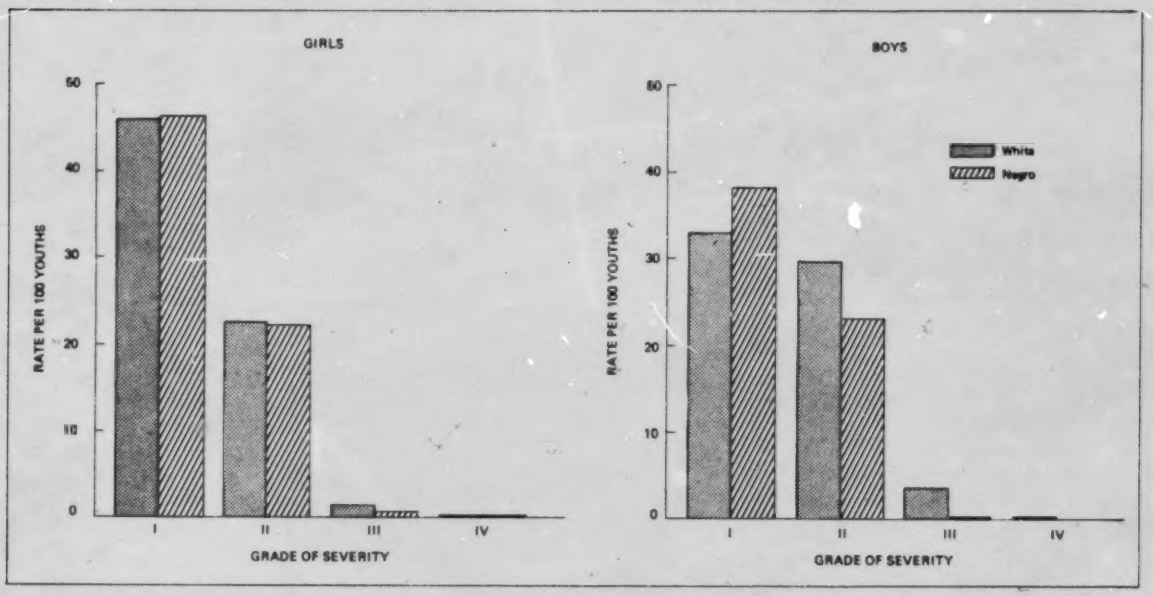

Figure 7. Prevalence rates for facial acne on examination among white and Negro boys and girls 12-17 years of age by physician's grade of severity: United States, 1966-70.

Region.—Facial acne is more prevalent among youths age 12-17 years in the South and West than those in the Northeast and Midwest. The rates based on examination findings range from 71.0 per 100 youths in the South to 65.8 per 100 in the Midwest. While this regional pattern is present among both boys and girls, the differences in the rates are not large enough to be statistically significant and are not consistent across the individual years of age (table 9). In each of the regions the prevalence rates for facial acne among boys are slightly, but not significantly, lower than those among girls but show a sharper gradient with age.

Moderate to severe facial acne is more prevalent and the mild conditions less prevalent among youths in the South than those in either the Midwest or West, but these rates (in the South) do not differ significantly from those in the Northeast. The prevalence rate for acne of grades II-IV severity is 38.4 per 100 youths in the South compared with rates ranging from 21.1 per 100 youths in the Midwest to 29.7 per 100 youths in the Northeast (table 10). This regional pattern in severity of acne is present among both boys and girls.

Among white boys and girls, the prevalence for facial acne of grade II or more severity is greatest for those in the South across the 12-17 year age range (table 11). The prevalence rate for moderate-severe facial acne among white boys in the South is 50.3 per 100 compared with rates ranging from 24.4 to 36.3 per 100 for white boys in the other three regions. Among white girls in the South the prevalence rate for acne of grade II or more severity is 36.2 per 100 compared with rates ranging from 18.2 to 23.8 per 100 in the other regions.

Among Negro youths the regional pattern in the prevalence of acne is less consistent for white youths. Moderate-severe acne is more prevalent among Negro girls in the South than those in the other regions, with rates ranging from 25.8 per 100 in the South to 14.6 in the Midwest. However, among Negro boys these more severe acne conditions are most prevalent in the Northeast (27.8 per 100) and least prevalent in the West (17.3 per 100).

Facial acne is more prevalent among white than Negro youths—both boys and girls—in the South. While the difference is these rates is sizable (74.3 per 100 compared with 61.7) it is not large enough to be statistically significant at the 5 percent probability level. In contrast, the prevalence rates among Negro youths in the other three regions slightly exceed those for white youths in the respective regions.

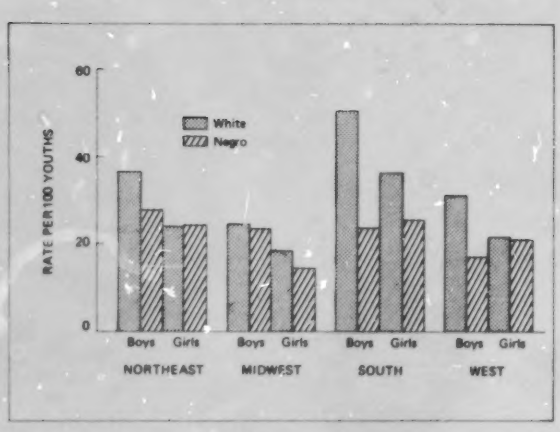

Figure 8. Prevalence rates for moderate-severe facial acne on examination among white and Negro boys and girls 12-17 years of age by geographic region: United States, 1966-70.

Moderate to severe facial acne is also substantially more prevalent among white than Negro youths in the South but is just slightly more prevalent also among white than Negro youths in the other three regions, in contrast to the findings for all grades of acne (table 11 and figure 8).

Size of place.—Youths age 12-17 years living in urbanized areas, those in suburban (other urban places outside of urbanized) areas, and those in rural areas of the United States had similar prevalence rates for facial acne, as determined at examination (tables 12-15).

The prevalence of facial acne is lower among Negro youths in suburban places than among either Negro youths in urbanized or rural areas or white youths in any of the three population density areas (figure 9). However, this finding needs to be interpreted with caution since Negro youths living in suburban areas constitute only 1 percent of all youths in the sample, were primarily in the South, and tended to be slightly younger than youths in other population-size areas.

Neither was there a significant difference in the prevalence of the moderate-severe acne by size of place of residence (table 13). Boys

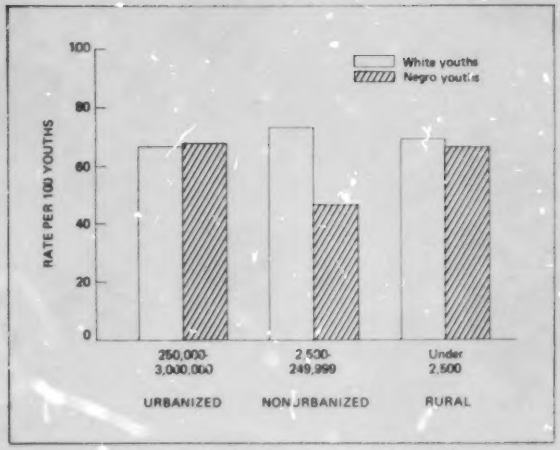

Figure 9. Prevalence rates for facial acne (all grades combined) on examination among white and Negro youths 12-17 years of age living in urbanized communities, nonurbanized communities, and rural areas: United States, 1966-70.

show a higher prevalence of facial acne grade II or more severity than girls regardless of the size of place in which they live. The prevalence of moderate to severe acne was lower among Negro youths in suburban areas than Negro youths in urbanized or rural areas or white youths in any of the three population-size areas. This trend is present among both boys and girls. However, as previously mentioned, this small group of suburban Negro youths were represented in the sample primarily by those in the South and were a somewhat younger segment of the youth population.

Family income.—The prevalence of facial acne among youths shows no consistent pattern of relationship with size of their family income. The rates range from 68.8 per 100 among youths in families with less than $5,000 to 66.0 per 100 among those in the $10,000-$14,999 bracket (table 16), a difference that could easily be due to chance alone with the size and design of the sample used in this national survey. The pattern of association is inconsistent and differs among boys and girls. Within each income level, the prevalence of facial acne among girls slightly exceeds that among boys.

Moderate to severe facial acne (grades II-IV) is more prevalent among girls from the lowest income level families (with less than $3,000 annual income) than among other girls (31.1 per 100 compared with rates ranging from 20.3 to 24.2 per 100 in the other income level groups). No consistent pattern is evident among the boys (table 17).

The tendency for white youths to have slightly higher prevalence rates for facial acne than Negro youths was most pronounced for white boys from families with income under $5,000 (figure 10 and table 18). At the higher income

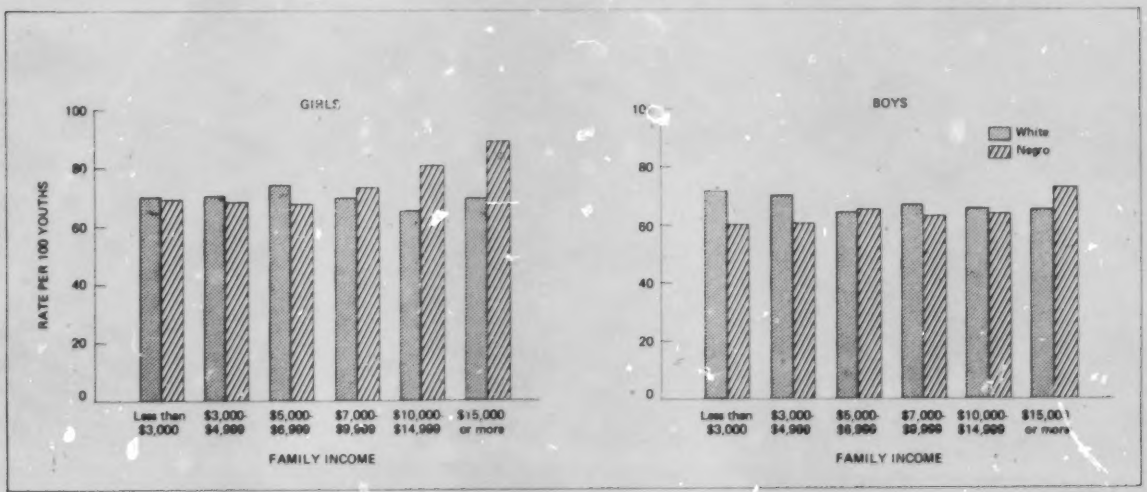

Figure 10. Prevalence rates for facial acne on examination among white and Negro boys and girls 12-17 years of age by annual family income: United States, 1966-70.

levels Negro youths, especially Negro girls, show prevalence rates that both increase with the size of the family income and exceed rates among white girls in those income brackets ($7,000 and over). The differences are not statistically significant, however, until a family income level of $15,000 and over is reached. The prevalence of facial acne among Negro boys also exceeds that for white boys in this highest income level group but the difference in rates is too small to be considered statistically significant.

Figure 11 shows the prevalence of facial acne of grade II or more severity by race, sex, and family income level. Among white youths, prevalence rates for this more severe acne tend to be highest among those in the lowest family income levels. At levels of $5,000 or more for white boys and $3,000 or more for white girls the prevalence rates for acne of grade II or more severity is less and remains essentially invariant with increase in family income.

In contrast, among Negro youths the rate for moderate-severe facial acne (grades II-IV) is slightly higher among Negro boys from families with $5,000 or more annual income than Negro boys from poorer families. Among Negro girls the prevalence of grade II or more severe acne is greater among the higher income levels ($7,000 or more) but also among those from the lowest income level (less than $3,000). None of these differences in rates are large enough to be statistically significant.

Education of parent.—A more consistent association exists between the prevalence of facial acne among youths and the educational level of their parent (head of household, usually father). The prevalence rates decrease from 70.6 per 100 among those youths whose parent had completed less than 9 years of formal education to 65.1 per 100 among those whose parent had some college education. The trend is evident among both boys and girls with few exceptions across the age range in this survey. While the differences in rates are not generally large enough to be statistically significant, the trend is consistent both for all facial acne and for conditions of grade II or more severity (tables 19, 20).

This pattern of association between acne prevalence among youths and education of their parents is similar and consistent among white boys and girls, and among Negro boys but not Negro girls (figure 12 and table 20). However, when limited to the moderate-severe acne conditions the decreasing trend in the prevalence rates with increase in education level is evident

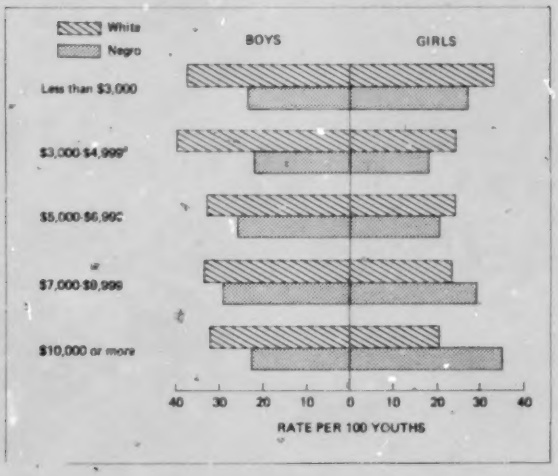

Figure 11. Prevalence rates for facial acne of grades II-IV severity on examination among white and Negro boys and girls 12-17 years of age by annual family income: United States, 1966-70.

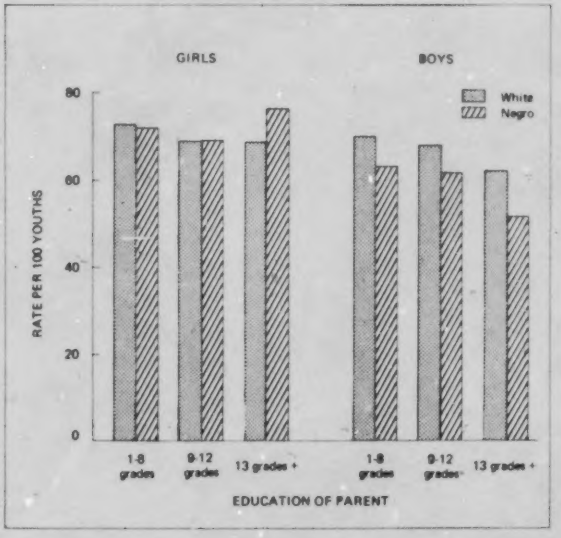

Figure 12. Prevalence rates for facial acne on examination among white and Negro boys and girls 12-17 years of age by education of parent: United States, 1966-70.

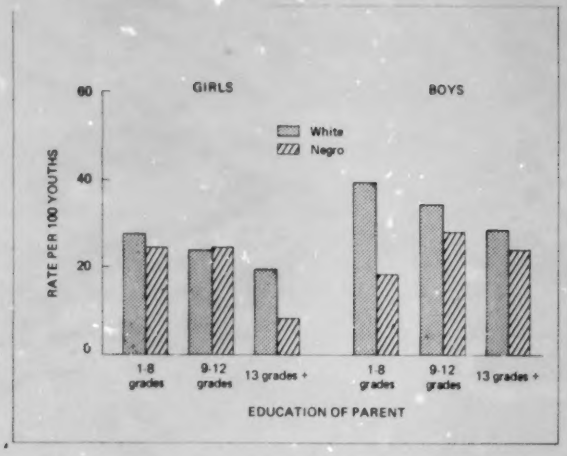

Figure 13. Prevalence rates for facial acne of grades II-IV severity on examination among white and Negro boys and girls 12-17 years of age by education of parent: United States, 1966-70.

among white boys and girls and among Negro girls but not boys (figure 13).

Relation to Health

The medical histories for the youths given by their parents and by the youths themselves included a rating of the youths' present health as excellent, very good, good, fair, or poor. Five percent of the youths rated themselves in fair or poor health compared with 4 percent based on their parents' rating. The extent of association of these ratings of present health to the presence of facial acne in the youths as identified on examination is shown in tables 21-23.

Facial acne is slightly more prevalent among youths—both boys and girls—whose health was considered fair or poor by themselves or their parents than among those rated as in good-excellent health (table 21). However, the difference in acne rates among the two groups (68 percent among those in good-excellent health and nearly 75 percent among those in poor-fair health) is not large enough to be considered statistically significant, nor is the higher acne rate consistent among those in fair-poor health across the 12-17 year age range among either boys or girls. The further lack of agreement between the findings from the parent and youth history statements may reflect the differing attitudes or knowledge of the respondents concerning the facial acne condition.

The extent of association between acne findings on examination among white and Negro youths and their health ratings are shown in table 22. These data would seem to indicate that the presence of facial acne in the youth would be less likely to have influenced the health rating as given by Negro parents than that given by white parents or youths of either race.

When considered in relation to the moderate-severe grades of facial acne, the acne condition would appear to have influenced (or been associated with another health condition that influenced) the health rating as given by parents (both white and Negro) to a slightly greater extent than those given by the youths (both white and Negro) (table 22 and figure 14).

In each of the four regions, those youths whose health was rated by their parents as fair-poor were slightly more likely to have facial acne than those in good-excellent health. In contrast on the basis of the youths'own health ratings, the prevalence of facial acne among those in the Northeast and Midwest Regions is significantly higher among youths in fair-poor health than those in good-excellent health, while in the South and West youths in good-excellent health

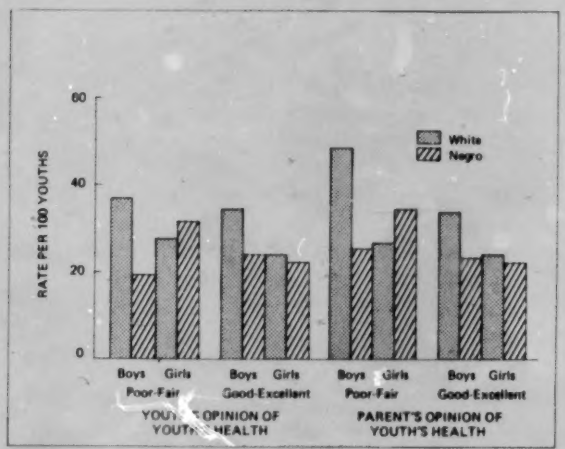

Figure 14. Prevalence rates for facial acne of grades II-IV severity on examination by youths' and parents' rating of health of white and Negro boys and girls 12-17 years of age: United States, 1966-70.

are about as likely as those in fair-poor health to have facial acne (table 23).

Allergies.—Since hypersensitivity may manifest itself in cutaneous lesions,[10] the association of history of hay fever, asthma, and other allergies to the prevalence of facial acne among youths was considered. The prevalence rate for facial acne among youths who have ever had hay fever, asthma, or other allergies is slightly higher than the facial acne rate for those without such a history (table 24). However, the difference is too small to be statistically significant and the direction of the difference is inconsistent over the 12-17 year age range.

Since most of the allergic skin disorders identified on the examination occurred in combination with facial acne, the prevalence rate for these allergic disorders active at the time of the examination (0.9 per 100 youths) would probably account for the slightly higher rate of acne among those with than without an allergy history.

It is readily apparent that while some 14 percent of youths have a history of such allergies that might have affected the skin, the proportion who still had an active condition affecting the skin at the time of the examination was either very low or not completely identified.

Taking medication.—Only a small proportion of youths (6 percent) were taking medication (presumably mostly on prescription) regularly for one or more conditions. Only 8 percent of these youths (0.4 percent of all youths) were taking such prescription medication primarily for a skin condition.

The prevalence of facial acne is significantly higher among those taking medication for a skin disorder (92.7 per 100 youths) than among other youths who were either not taking any medication regularly or taking medication regularly for other conditions (68 per 100 youths among both groups) (table 25).

Relation to Stress and Health Habits

Among the factors which have been identified as possibly contributing to the production of acne or causing the exacerbation of acne lesions are stress (or the effect of it), other emotional, traumatic, and dietary factors.[10] Available data from the medical history relevant to these factors—degree of nervousness, degree of adjustment in school, problems with sleeping and eating habits—will be considered here as they may relate to the prevalence of facial acne among youths.

Nervousness.—An association is evident between the prevalence of facial acne among youths and the youths' own rating of his degree of nervousness (table 26). The prevalence rate for facial acne increases with the degree of nervousness of the youths from 62.6 per 100 among those who rated themselves as "never nervous" to 77.0 per 100 among those who were "often nervous." The difference in acne rates between those who say they are "never nervous" and the groups who are "sometimes" or "rarely nervous," as well as between those middle ("some" and "rarely") groups and youths who are "very nervous" are large enough to be statistically significant for all youths. A similar trend is present among both boys and girls and generally across age from 13-17 years.

This pattern of association between degree of nervousness (youth's rating) and the prevalence of acne is generally consistent among white youths and among all youths in each of the four geographic regions (tables 27 and 28). Among Negro youths acne also is most prevalent among those who say they are often nervous and least prevalent among the group who are never nervous.

The association is less strong or consistent when based on the parents' rating of the degree of nervousness for youths.

School behavior.—The prevalence of facial acne tended to be slightly higher among those youths—both boys and girls—who were rated as seriously maladjusted in school than those who were considered better adjusted. However, the difference in rates is too small to be of statistical significance and this pattern is not consistent over the age range. (Table 29.) No association was found between the acne rates and the school evaluation regarding need for special educational resources for the emotionally disturbed.

Sleep problems.—Youths who said they did not walk in their sleep were more likely to have facial acne than those who did. Similarly those who said they never had nightmares were slight-

ly more likely to have this condition than those who had such bad dreams sometimes or often. However, no association was evident in relation to reported trouble sleeping, getting to sleep, or lack of it. (Table 30.)

Eating habits.—While no information was obtained in this survey among youths concerning their dietary intake of certain foods or the lack of an adequately balanced diet (factors that have been suggested as possibly contributing to the exacerbation of acne lesions [10,11]) the medical history given did contain questions about the quantity of food eaten and the youth's fussiness regarding food.

The amount eaten (as reported by the parent) shows a significant relationship to the prevalence of facial acne. There is a consistent decrease in the prevalence rate for this skin condition (facial acne) with the amount of food usually eaten from 74.0 per 100 youths who are said to eat too much to 62.9 per 100 among those who eat too little. The acne rate among youths who eat too much is significantly higher than among those who eat either the right amount or too little. (Table 31.)

Boys who eat too much are substantially more likely to have facial acne than those who eat too little, while for girls the prevalence of acne among those who eat too much is only slightly greater than among those who eat the right amount or too little.

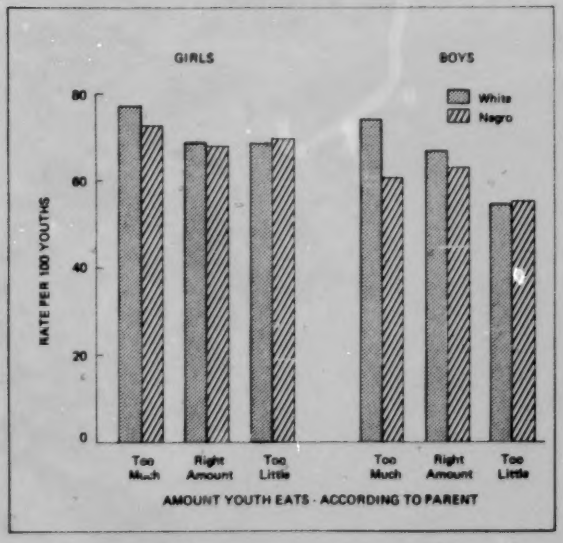

Figure 15. Prevalence rates for facial acne on examination among white and Negro boys and girls 12-17 years of age by parents' report on amount youths eat: United States, 1966-70.

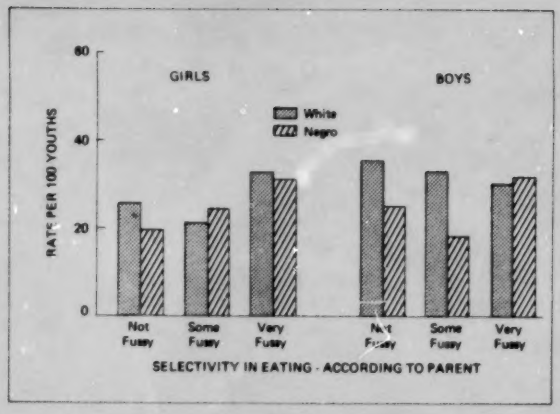

Figure 16. Prevalence rates for grades II-IV severity of facial acne on examination among white and Negro boys and girls 12-17 years of age by parents' report on youths selectivity in eating: United States, 1966-70.

This pattern of association is more consistent among white than Negro youths (figure 15) and among those living in the Northeast and Midwest than those in the South and West. (Table 32.)

With respect to their degree of selectivity or fussiness with food, facial acne is slightly more prevalent among girls but not boys rated as very fussy. This pattern is evident, but not significant, among white and Negro girls but not boys (figure 16 and table 31).

Relation to Physiological Development

Acne occurs so frequently among preadolescent and adolescent children as sometimes to be regarded as physiological rather than pathological.[10,12,13] While the pilosebaceous system is probably conditioned by a genetic factor,[14,15] endocrine changes occurring around the time of puberty also apparently contribute to the production of acne.[14,16-19] Evidence of the stage of physiological maturation available from the examination will be considered in relation to the presence of acne among these youths.

Three findings from the physical examination given by the physician are available for the generation of an index of sexual maturation among boys and girls: stage of female breast maturation, the stage of male genital maturation, and the stage of pubic hair maturation in boys and girls. The examining physician graded each in five stages using Tanner's Criteria. [20] The index derived for boys is one-third the sum of the stage of pubic hair maturation plus twice the stage of male genital maturation. For girls the index is one-third the sum of right and left breast maturation plus the stage of pubic hair development. The resultant index of sexual maturity ranged from one to five, with the value of one indicating little or no development of secondary sex characteristics, and a value of five indicating full development of secondary sex characteristics.

As in other measures of biological age, maturation, as measured by the development of secondary sex characteristics, on the average, starts more slowly or later in males than females. [21] At age 12 years, more than one-third (37 percent) of the boys show little or no development of secondary sex characteristics (index stage 1) compared with only 11 percent of the girls. By age 17 years, however, almost 90 percent of boys were fully mature sexually while only two-thirds of the girls had progressed to stage 5 maturity (table 33).

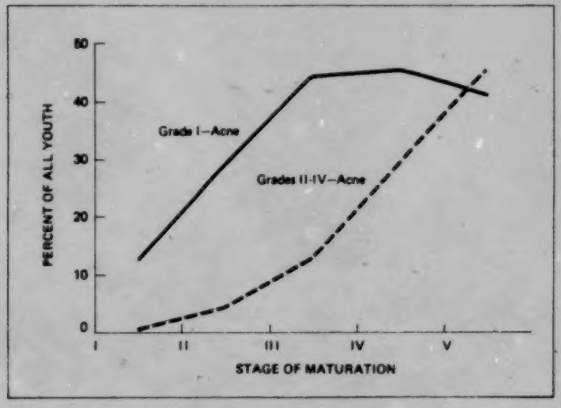

Figure 17. Prevalence rates for mild (grade I) and moderate-severe (grades II-IV) facial acne on examination among youths 12-17 years by stage of development of secondary sex characteristics: United States, 1966-70.

The prevalence of facial acne increases with the degree of development of secondary sex characteristics among both boys and girls at ages 12-15 years and for boys continues to age 16 years. However, within the same stages of maturity, there is a fairly consistent linear association (increase) with age in the prevalence of acne except at the extremes of maturity—those with little or no evidence of sexual development and those who are apparently sexually mature (stages 1 and 5). Among youths who have apparently reached sexual maturity the prevalence rates for facial acne show no age-related trend among either boys or girls.

The prevalence of facial acne tends to be greater among girls than boys who are in the least advanced stages of sexual maturity (stages 1 and 2). However, there is a reversal in this pattern among those who are at or close to maturity (stages 4 and 5) where the acne rate among boys exceeds that among girls.

The pattern of association of the prevalence of facial acne to the stage of development of secondary sex characteristics is similar among white and Negro youths (table 34).

As shown in figure 17, the severity of facial acne tended to increase with the degree of development of secondary sex characteristics. The proportion of youths with acne whose condition was graded as moderate to severe increased steadily from 4 percent among those showing little or no development (index stage 1) to 52 percent among those fully developed (index stage 5). Only in part is this increase age-related.

One further indicator of physiological maturation available that has been suggested as possibly being related to the development or exacerbation of acne [12] is the onset of menarche among girls, as reported to the nurse during the examination. Acne tends to start after menarche among girls for whom the onset of menarche is before 13 years of age. The extent of delay in the development of acne in these girls decreases from a median delay of over 1 year among those with menarche starting before age 10 to a median delay of about 4 months for those starting during age 12 years (table 35). However, among the one-third of the girls whose onset of menarche is later—age 14-16 years—the onset of acne generally precedes menarche, with

the median time lapse increasing from 4 months for those starting during age 14 years to over 1 year among those starting during age 16 years. Hence, the age at which acne starts among girls would appear to be relatively independent of the age of onset of menarche.

COMPARISON WITH OTHER STUDIES

Previous estimates of the incidence or prevalence of skin conditions among youths are mainly limited to acne and are based primarily on findings from studies among groups of patients treated in clinics, physicians' offices, or hospitals. The criteria used apparently differ and the basic data from the studies are not readily available for detailed comparison.

Nelson [10] indicates that 85 percent of preadolescent and adolescent children exhibit some manifestation of plugging of sebaceous glands. Estimates in Lowry [22] indicate that acne is present to some degree in 75-90 percent of children before 18 years of age. These previous findings are not inconsistent with those from the present cross-sectional study for the U.S. youths which show a facial acne prevalence rate of 86 per 100 youths at 17 years of age.

Ebling and Rook [12] have previously estimated that papules and pustules are present in 30-50 percent of children at the ages of peak incidence, 14-17 in girls and 16-19 in boys. On the basis of the findings from the present national study, the previous estimates for boys are lower and those for girls somewhat higher than actual. Among U.S. boys the prevalence of acne grades II-IV at 16 and 17 years has reached rates of 51 and 57 per 100, respectively, and shows no leveling off within the age range in this study. For U.S. girls the prevalence of moderate-severe acne ranges from 24-32 percent at ages 14-17 years and does appear to have reached a maximum value within this range.

In the present national study there is some indication of regional differences in total prevalence and in severity of acne, though the patterns are not statistically significant and the sample too small to make possible the assessment of any specific area differences which previous investigators have indicated may exist. [23-26]

Prevalence estimates for chronic skin conditions among the civilian noninstitutionalized population of the United States, based on findings from the Health Interview Survey in 1969, have also been published. [27] These skin conditions were identified in response to the question: "During the past 12 months did anyone in the family have any of these conditions?—A tumor, cyst or growth of the skin, eczema or psoriasis, trouble with dry or itching skin, trouble with acne, a skin ulcer, any kind of skin allergy, dermatitis, or any other skin trouble?"

Prevalence rates for skin conditions from both surveys are shown in table B, together with crude estimates for the prevalence of acne for the 12-16 year old group from the Health Interview Survey. These latter estimates were made assuming that the reported age of onset for acne from the Health Examination Survey history which showed about 16 percent as having the age of onset of acne below the age of 12 years would apply among that group also.

Some differences in the prevalence rates for skin conditions among youths as obtained in the Health Interview and Health Examination Surveys would be expected. Acne was reported in the Interview Survey in response to the question of "trouble with acne" while the Examination Survey was intended to identify all acne. On this basis it might be expected that the interview responses would be more likely to correspond to the conditions graded as moderate-severe in the examination. The medical history from the Examination Survey further shows that only 51 percent of youths with acne (all grades combined) and 56 percent of those with moderate-severe acne were bothered some or a lot by their acne condition. If this further restriction was applied to the prevalence rate for moderate-severe acne from the Examination Survey among the 12-16 year olds a rate of 11.8 per 100 or more than double the estimated rate of 5.3 per 100 would have been expected from the Interview Survey.

The higher prevalence rates for the grouping including eczema and dermatitis from the Interview than the Examination Survey would be expected because the Interview question asked about conditions existing at any time during the

Table B. Prevalence rates for selected skin conditions among noninstitutionalized children and youths in the United States from the Health Interview Survey of 1969 and the Health Examination Survey of 1966-70

Condition	(In the past 12 months) Health Interview Survey, 1969		(At the time of the survey) Health Examination Survey, 1966-70	
	Under 17 years	Estimates for 12-16 years	12-17 years	Estimates for 12-16 years
	Rate per 100			
Any skin condition	6.4	10.9	72.3	57.7
Acne	1.7	5.3	68.1	53.9
Acne, Grades II-IV	-	-	28.3	21.1
Eczema, dermatitis and the like	2.9	[3]	0.9	0.9
Corns and callosities	0.1	0.1	0.1	0.1
Chronic infections of skin and fungal conditions	0.3	0.3	[1]1.5	[1]1.5
Psoriasis and similar rashes	0.2	0.2	[2]0.3	[2]0.3
Hypertropic and atropic diseases	0.5	0.5	[2]1.0	[2]1.0

[1] Includes acute as well as chronic infections.
[2] Excludes scars and corns.
[3] No estimate attempted.

preceding 12 months and included a younger age group more subject to these, while the examination identified such conditions present at the time of examination and only if they interfered with normal growth and development. It is also possible that some of the cases identified as acne in the Examination Survey would have been reported by the parent as eczema or dermatitis in the Interview Survey.

SUMMARY

This report presents national estimates of the prevalence of facial acne and other skin lesions among noninstitutionalized youths aged 12-17 years by age, race, sex, geographic region, population size of place of residence, family income, education of parent, overall health, indications of stress, selected health habits, and physiological development. The estimates are based on findings from the Health Examination Survey of 1966-70.

For this survey, a probability sample of 7,514 youths was selected to represent the nearly 23 million noninstitutionalized youths 12-17 years of age in this country at midsurvey point. Of these, 6,768 (90 percent) were examined. The examined group were closely representative of the target population from which the sample was drawn with respect to age, sex, race, geographic region, population size of place of residence, and rate of change in size of place of residence from 1950 to 1960.

Major findings from this part of the examination include:

- Facial acne (all grades combined) is about as prevalent among girls as boys in the 12-17 year age range. However, such conditions start somewhat earlier and tend to be less severe in girls than boys.
- Nonacne skin conditions which affect normal growth and development are less prevalent in girls than boys but show no trend with age.

- A high level of agreement (88 percent) was found between youths' report of acne and the physician's findings of facial acne on examination.
- Among youths reporting they had acne, more than half (51 percent) were bothered some or a lot by the condition and (58 percent) were using some treatment for it but only 11 percent had seen a doctor about it.
- White youths are slightly more likely than Negro youths to have moderate to severe facial acne but less likely to have mild conditions limited to comedones with little or no inflammatory reaction. Non-acne skin conditions are more prevalent among Negro than white youths.
- Facial acne is somewhat more prevalent among youths living in the South and West than those in the Northeast or Midwest. However, no consistent urban-rural differences in prevalence rates were found.
- Some direct or indirect association is evident between acne prevalence in youths and the education of their parents but not their family income level. The acne prevalence rates decrease consistently with increasing education level of parents.
- Facial acne is slightly more prevalent among youths whose health was rated fair-poor than among those considered in good-excellent health by either themselves or their parents.
- Facial acne prevalence increases with the degree of nervousness of the youth, the association being stronger and more consistent when based on the youth's own rating of nervousness than that given by his or her parent.
- The amount of food eaten particularly among boys appears to be related, directly or indirectly, to the prevalence of facial acne. Acne rates are higher among those who are said, by their parents, to eat too much than those who eat too little.
- The prevalence and severity of facial acne increases with the degree of development of secondary sex characteristics among boys 12-16 years and girls 12-15 years of age.
- Among girls acne tends to start after the onset of menarche for girls who reach this stage of physiological development before 13 years of age but to precede this point of development for those whose menarche onset is 14 years or later.

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Age and sex	All youths	Total with normal skin	Total with any skin lesions	Type of skin problem							Total with facial acne	Total with body acne	Total with other nonacne lesions
				Facial acne only	Body acne only	Nonacne skin lesions only	Facial and body acne	Facial acne and other lesions	Body acne and other lesions	All three conditions			
	Percent of youths												
Both sexes													
12-17 years	100.0	27.7	72.3	58.3	0.1	4.1	0.5	9.2	0.0	0.1	68.1	0.7	13.4
12 years	100.0	53.2	46.8	33.1	-	7.8	0.1	5.8	-	-	39.0	0.1	13.6
13 years	100.0	38.9	61.1	47.7	-	9.1	-	8.3	-	-	56.0	-	13.4
14 years	100.0	25.7	74.3	60.7	-	4.5	0.4	8.7	-	-	69.8	0.4	13.2
15 years	100.0	17.4	82.6	67.6	-	3.5	0.7	10.7	-	0.1	79.1	0.8	14.3
16 years	100.0	15.5	84.5	70.6	0.2	1.7	1.0	10.7	-	0.3	82.5	1.5	12.7
17 years	100.0	11.5	88.5	73.5	0.1	1.8	1.0	11.5	0.1	0.5	86.4	1.7	13.8
Boys													
12-17 years	100.0	28.8	71.2	55.2	0.0	4.8	0.6	10.4	0.0	0.2	66.4	0.8	15.4
12 years	100.0	64.3	35.7	20.5	-	10.2	-	5.0	-	-	25.5	-	15.2
13 years	100.0	45.2	54.8	39.7	-	6.4	-	8.7	-	-	48.4	-	15.1
14 years	100.0	24.8	75.2	56.6	-	5.2	0.7	12.7	-	-	70.0	0.7	17.9
15 years	100.0	16.5	83.5	67.6	-	3.2	0.4	12.1	-	0.2	80.3	0.6	15.5
16 years	100.0	9.2	90.8	75.6	-	1.4	1.2	12.1	-	0.5	89.4	1.7	14.0
17 years	100.0	7.1	92.9	76.8	0.3	1.2	1.6	12.2	0.2	0.6	91.2	2.7	14.0
Girls													
12-17 years	100.0	26.6	73.4	61.3	0.1	3.5	0.4	8.0	-	0.1	69.8	0.6	11.6
12 years	100.0	41.9	58.1	46.1	-	5.3	0.2	6.5	-	-	52.8	0.2	11.8
13 years	100.0	32.4	67.6	55.9	-	3.8	-	7.9	-	-	63.8	-	11.7
14 years	100.0	26.7	73.3	64.8	-	3.7	0.2	4.6	-	-	69.6	0.2	8.3
15 years	100.0	18.3	81.7	67.6	-	3.9	0.9	9.3	-	-	77.8	0.9	13.2
16 years	100.0	21.9	78.1	65.5	0.5	2.0	0.8	9.3	-	-	75.6	1.3	11.3
17 years	100.0	16.0	84.0	70.1	-	2.3	0.4	10.8	-	0.4	81.7	0.8	13.5
	Standard error of percentages												
Both sexes, 12-17 years	...	1.75	1.75	1.53	0.04	0.38	0.16	0.82	0.01	0.05	1.88	0.22	0.98
Boys, 12-17 years	...	1.72	1.72	1.47	0.04	0.45	0.20	0.87	0.03	0.08	1.81	0.26	1.12
Girls, 12-17 years	...	1.99	1.99	1.83	0.07	0.50	0.15	0.92	-	0.04	2.14	0.20	1.00
	Number in thousands												
Both sexes													
12-17 years	22,692	6,280	16,406	13,221	10	942	115	2,089	3	32	15,457	160	3,066
12 years	4,002	2,131	1,871	1,326	-	312	3	230	-	-	1,559	3	542
13 years	3,952	1,538	2,414	1,883	-	202	-	329	-	-	2,212	-	531
14 years	3,852	991	2,861	2,336	-	172	16	337	-	-	2,689	16	509
15 years	3,751	654	3,097	2,537	-	131	25	401	-	3	2,966	28	535
16 years	3,625	562	3,063	2,559	7	62	36	388	-	11	2,994	54	461
17 years	3,510	404	3,106	2,580	3	63	35	404	3	18	3,037	59	488

Table 2. Prevalence rates for facial acne at examination among youths, by grade of severity, age, and sex, with standard errors: United States, 1966-70

Age and sex	Severity grade of facial acne				Severity grade of facial acne			
	I	II	III	IV	I	II	III	IV
	Rate per 100 youths				Standard error			
Both sexes								
12-17 years	39.8	25.7	2.4	0.2	1.20	1.70	0.36	0.04
12 years	31.3	7.6	-	-	2.00	0.99	-	-
13 years	39.3	16.1	0.5	-	1.69	2.21	0.36	-
14 years	42.4	25.7	1.7	0.1	1.69	1.75	0.47	0.07
15 years	42.1	33.0	3.8	0.2	1.91	2.63	0.75	0.15
16 years	42.6	36.4	3.2	0.3	2.08	2.76	0.52	0.17
17 years	42.0	38.1	6.0	0.6	1.95	2.43	1.24	0.25
Boys								
12-17 years	33.8	29.0	3.4	0.3	1.52	1.97	0.41	0.07
12 years	22.3	3.2	-	-	2.18	0.99	-	-
13 years	33.5	14.3	0.6	-	2.29	2.61	0.28	-
14 years	38.9	29.3	1.7	0.1	2.72	2.39	0.63	0.10
15 years	36.4	39.3	4.6	-	3.20	3.87	0.91	-
16 years	37.8	46.2	4.6	0.7	2.78	3.38	0.64	0.33
17 years	34.5	46.0	10.2	1.1	2.45	3.36	1.84	0.46
Girls								
12-17 years	46.0	22.3	1.4	0.1	1.30	1.66	0.36	0.05
12 years	40.6	12.2	-	-	2.60	1.68	-	-
13 years	45.3	18.0	0.5	-	2.58	2.21	0.53	-
14 years	45.9	22.0	1.6	0.1	1.66	2.14	0.50	0.10
15 years	48.0	26.5	2.9	0.4	1.72	2.21	1.03	0.31
16 years	47.5	26.4	1.7	-	2.66	2.86	0.73	-
17 years	49.6	30.2	1.7	0.1	2.55	2.92	0.84	0.14

Table 3. Prevalence rates for nonacne skin lesions at examination among youths age 12-17 years by type of condition and sex, with standard errors: United States, 1966-70

Type of condition	Both sexes	Boys	Girls	Both sexes	Boys	Girls
	Rate per 100 youths			Standard error		
Tumors, growths, and birthmarks	2.12	2.29	1.93	0.30	0.37	0.33
Café au lait spots	0.51	0.57	0.44	0.12	0.19	0.12
Nevi	1.20	1.34	1.06	0.17	0.18	0.21
Hemangioma	0.32	0.32	0.32	0.07	0.11	0.12
Other tumors, growths, etc.	0.09	0.06	0.11	0.03	0.03	0.05
Allergic and nutritional disorders	0.92	1.02	0.80	0.13	0.19	0.15
Poison ivy, oak, or sumac	0.15	0.14	0.15	0.05	0.06	0.07
Allergic reaction, eczema, contact dermatitis (except plant)	0.76	0.86	0.65	0.11	0.14	0.15
Other allergic or nutritional	0.01	0.02	-	0.01	0.02	-
Hypertropic or atropic skin conditions	7.02	7.96	6.05	0.53	0.77	0.53
Scars	5.91	7.09	4.70	0.49	0.68	0.50
Corns and callosities	0.05	0.04	0.06	0.03	0.04	0.04
Icthyosis, keratosis pilaris	0.23	0.25	0.21	0.12	0.16	0.11
Dry skin, asteatosis	0.62	0.46	0.78	0.14	0.12	0.18
Other hypertropic or atropic	0.21	0.12	0.30	0.11	0.06	0.18
Abrasions, burns, and other results of accidents or violence	0.72	0.92	0.50	0.12	0.25	0.18
Abrasions, lacerations, bruises, ecchymoses, and/or hematoma	0.51	0.62	0.39	0.09	0.17	0.17
Animal or insect bites	0.09	0.07	0.11	0.04	0.04	0.07
Burns	0.10	0.19	-	0.04	0.08	-
Other results of accident or violence	0.02	0.04	-	0.02	0.04	-
Infective, fungal, or viral skin disease	1.60	1.87	1.31	0.24	0.23	0.25
Impetigo	0.06	0.09	0.02	0.03	0.05	0.02
Herpes simplex	0.13	0.13	0.13	0.03	0.05	0.05
Other herpes	0.03	0.04	0.01	0.01	0.03	0.02
Plantar's wart	0.09	0.07	0.11	0.04	0.05	0.05
Other warts	0.60	0.62	0.58	0.14	0.18	0.20
Boils and carbuncles	0.05	0.06	0.04	0.02	0.05	0.03
Athlete's foot	0.21	0.33	0.09	0.07	0.12	0.05
Tinea corpus-ringworm	0.07	0.11	0.02	0.03	0.05	0.03
Tinea versicolor-pityriasis	0.12	0.17	0.07	0.06	0.10	0.04
All other infective or fungal	0.24	0.25	0.24	0.06	0.05	0.10
Other skin, hair, or nail disorders	2.11	2.41	1.81	0.26	0.51	0.38
Neurodermatitis and 'rashes'	0.32	0.43	0.21	0.08	0.14	0.08
Seborrheic dermatitis	0.10	0.10	0.10	0.03	0.05	0.08
Psoriasis	0.09	0.07	0.12	0.04	0.04	0.06
Other maculo-papular scaly lesions	0.17	0.25	0.09	0.06	0.10	0.05
Vitiligo	0.22	0.14	0.30	0.07	0.06	0.11
Other disorders resulting in changes in pigmentation	0.76	0.93	0.58	0.17	0.23	0.14
Ingrown toenails	0.09	0.07	0.12	0.04	0.04	0.06
All other	0.36	0.42	0.29	0.08	0.12	0.10

Table 4. Percent of youths age 12-17 years reporting having acne by examination findings of grade of acne and sex: United States, 1966-70

Health history from youth and sex	All youths	Examination findings					
		No acne	Grade I	Grade II	Grade III	Grade IV	Not examined[1]
	Percent of youths						
Both sexes	100.0	31.9	39.8	25.7	2.4	0.2	-
Boys	100.0	33.5	33.8	29.0	3.4	0.3	-
Girls	100.0	30.2	46.0	22.3	1.4	0.1	-
Both sexes	Percent distribution						
12-17 years	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Have acne	49.1	18.7	50.4	79.8	93.8	100.0	76.9
Do not have acne	50.7	80.8	49.3	20.1	4.9	-	23.1
Did not answer	0.2	0.5	0.3	0.1	1.3	-	-
Boys							
12-17 years	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Have acne	49.7	17.9	49.4	80.4	95.7	100.0	70.1
Do not have acne	50.1	81.6	50.3	19.4	3.3	-	29.9
Did not answer	0.2	0.5	0.3	0.2	1.0	-	-
Girls							
12-17 years	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Have acne	48.5	19.7	51.1	78.9	89.0	100.0	*
Do not have acne	51.3	79.8	48.6	21.0	9.0	-	*
Did not answer	0.2	0.5	0.3	0.1	2.0	-	*

[1] No estimate was made of the grade of acne for the 7 boys whose skin was not examined. Rather it has been assumed that the distribution of these findings among them is similar to that among those boys who were given this part of the examination.

Table 5. Percent of youths reporting having acne, by age of onset of acne, sex, and age on examination, with standard errors for totals: United States, 1966-70

Age and sex	Total	Age acne started[1]									Median age in years
		Under 10 years	10 years	11 years	12 years	13 years	14 years	15 years	16 years	17 years	
	Percent of youths										
Both sexes											
12-17 years----	100.0	1.8	3.8	10.9	23.8	28.4	19.6	8.6	2.6	0.5	13.3
12 years----------	100.0	4.2	15.5	46.8	33.5	-	-	-	-	-	11.7
13 years----------	100.0	1.5	5.3	17.9	50.1	25.2	-	-	-	-	12.5
14 years----------	100.0	1.9	2.5	7.2	25.0	50.1	13.3	-	-	-	13.3
15 years----------	100.0	1.3	2.0	3.6	17.8	33.0	34.4	7.9	-	-	13.7
16 years----------	100.0	1.7	1.2	2.5	15.3	27.1	31.2	18.1	2.9	-	14.1
17 years----------	100.0	1.3	1.7	4.5	11.6	23.5	25.3	18.7	10.7	2.7	14.3
Boys											
12-17 years------	100.0	1.4	2.3	5.9	19.8	29.4	25.2	12.0	3.3	0.7	13.7
12 years----------	100.0	6.8	12.2	33.9	47.1	-	-	-	-	-	11.9
13 years----------	100.0	0.3	3.1	11.9	49.7	35.0	-	-	-	-	12.7
14 years----------	100.0	1.3	2.0	4.3	21.4	53.7	17.3	-	-	-	13.4
15 years----------	100.0	0.6	1.1	1.3	12.7	34.2	39.9	10.2	-	-	14.0
16 years----------	100.0	1.3	0.9	0.7	10.5	21.3	39.5	22.7	3.1	-	14.4
17 years----------	100.0	1.2	0.9	3.4	6.9	19.8	27.4	23.8	13.0	3.6	14.6
Girls											
12-17 years------	100.0	2.2	5.4	16.1	28.1	27.5	13.7	5.0	1.8	0.2	12.9
12 years----------	100.0	2.7	17.4	54.0	25.9	-	-	-	-	-	11.5
13 years----------	100.0	2.4	7.0	22.6	50.4	17.6	-	-	-	-	12.3
14 years----------	100.0	2.5	2.9	10.3	28.9	46.4	9.0	-	-	-	13.1
15 years----------	100.0	2.0	3.1	6.2	23.5	31.7	28.3	5.2	-	-	13.5
16 years----------	100.0	2.3	1.6	5.1	22.1	35.6	19.0	11.6	2.7	-	13.5
17 years----------	100.0	1.4	2.6	5.8	17.4	28.2	23.1	12.3	7.8	1.4	13.8
	Standard error										
Both sexes, 12-17 years----------	...	0.36	0.42	0.61	0.61	0.83	0.85	0.55	0.28	0.14	-
Boys, 12-17 years----	...	0.36	0.41	0.60	0.88	1.03	1.13	0.98	0.49	0.20	-
Girls, 12-17 years---	...	0.55	0.63	0.90	1.17	1.29	0.87	0.45	0.40	0.14	-

[1]Age at last birthday.

Table 6. Prevalence rates for skin lesions (all types combined), facial acne, and nonacne skin lesions at examination among white and Negro youths, by age and sex, with standard errors: United States, 1966-70

Age and sex	Total with any skin lesions		Type of skin problem				Total with any skin lesions		Type of skin problem			
			Facial acne		Nonacne lesions				Facial acne		Nonacne lesions	
	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro
	Rate per 100 youths						Standard error					
Both sexes												
12-17 years----	72.5	70.9	68.5	65.5	13.1	15.9	1.59	7.29	1.57	8.23	1.03	1.91
12 years----------	46.8	46.9	39.1	38.4	13.7	13.1	2.76	4.52	2.65	7.33	1.30	3.43
13 years----------	60.9	62.0	56.2	54.1	13.3	14.7	2.29	9.51	2.33	9.00	1.81	3.54
14 years----------	74.4	72.6	70.1	67.4	12.4	17.1	2.03	11.35	1.85	11.80	1.10	3.89
15 years----------	82.6	83.4	79.1	79.6	13.6	17.8	2.13	7.47	2.13	8.24	1.19	3.05
16 years----------	85.0	81.0	83.2	78.1	12.2	16.0	1.95	7.41	1.97	8.43	1.75	4.03
17 years----------	88.9	84.9	87.1	81.7	13.4	17.1	1.46	6.11	1.44	6.88	1.73	3.66
Boys												
12-17 years------	71.6	68.6	67.1	61.8	15.2	16.4	1.54	7.00	1.55	7.21	1.08	3.11
12 years----------	36.7	30.5	26.5	19.8	15.6	13.1	2.95	4.32	2.62	4.67	2.15	4.04
13 years----------	53.9	60.8	48.0	50.4	15.2	16.1	2.80	13.81	2.80	11.22	2.10	6.62
14 years----------	75.0	75.1	70.0	68.8	17.6	18.3	2.03	10.54	2.09	10.97	1.57	5.94
15 years----------	84.4	78.4	81.7	71.9	14.8	19.0	2.70	10.40	2.69	11.28	1.83	4.61
16 years----------	91.7	84.2	90.5	82.6	13.8	14.7	1.47	5.78	1.55	5.47	2.03	4.66
17 years----------	93.0	91.2	91.7	87.6	13.7	18.0	1.71	4.48	1.87	5.30	2.41	5.15
Girls												
12-17 years------	73.4	73.2	69.9	69.1	11.0	15.3	1.91	7.98	1.87	9.59	1.12	1.19
12 years----------	57.3	63.8	52.1	57.7	11.8	13.0	3.67	7.53	3.41	11.01	1.56	4.49
13 years----------	68.2	63.2	64.8	57.6	11.4	13.4	2.73	8.06	2.74	9.93	2.25	2.26
14 years----------	73.8	70.3	70.2	66.0	7.1	16.0	3.00	13.10	2.99	13.79	1.29	4.08
15 years----------	80.6	88.5	76.3	87.5	12.4	16.7	2.00	6.48	2.19	6.68	1.84	3.53
16 years----------	78.0	78.0	75.8	73.8	10.4	17.2	3.29	10.84	3.20	12.81	2.27	4.73
17 years----------	84.7	78.9	82.4	76.2	13.1	16.2	2.50	7.99	2.62	9.28	1.73	4.82

Table 7. Prevalence rates for facial acne at examination among white and Negro youths, by grade of acne, age, and sex, with standard errors for totals: United States, 1966-70

Age and sex	Severity grade of facial acne							
	I		II		III		IV	
	White	Negro	White	Negro	White	Negro	White	Negro
	Rate per 100 youths							
Both sexes								
12-17 years	39.3	42.2	26.2	22.7	2.7	0.5	0.2	0.1
12 years	31.2	31.8	7.8	6.6	-	-	-	-
13 years	39.7	36.4	15.9	17.7	0.6	-	-	-
14 years	41.9	44.6	26.5	20.3	1.6	2.1	0.1	0.4
15 years	40.4	52.4	34.1	27.2	4.3	-	0.2	-
16 years	42.3	44.7	37.0	33.0	3.5	0.4	0.4	-
17 years	41.2	45.9	38.6	35.3	6.8	0.5	0.7	-
Boys								
12-17 years	33.0	38.3	29.9	23.3	3.9	0.3	0.3	-
12 years	22.9	19.0	3.6	0.7	-	-	-	-
13 years	34.0	29.0	13.3	21.3	0.7	-	-	-
14 years	38.1	43.7	30.2	23.4	1.8	1.7	0.1	-
15 years	34.9	47.4	41.6	24.5	5.3	-	-	-
16 years	37.7	40.3	46.9	42.4	5.1	-	0.8	-
17 years	31.0	55.0	48.3	32.5	11.8	-	1.2	-
Girls								
12-17 years	45.9	46.1	22.4	22.2	1.5	0.7	0.1	0.1
12 years	39.9	45.0	12.2	12.8	-	-	-	-
13 years	45.5	43.3	18.6	14.3	0.6	-	-	-
14 years	45.9	45.5	22.8	17.3	1.5	2.4	-	0.8
15 years	46.1	57.4	26.3	30.0	3.4	-	0.5	-
16 years	47.1	49.0	26.8	24.0	1.9	0.8	-	-
17 years	51.5	37.3	28.9	37.9	1.8	1.0	0.2	-
	Standard error							
Both sexes, 12-17 years	1.07	5.24	1.67	4.34	0.41	0.20	0.05	0.06
Boys, 12-17 years	1.45	4.70	2.03	4.61	0.47	0.21	0.09	-
Girls, 12-17 years	1.30	5.96	1.61	4.84	0.40	0.25	0.06	0.13

Table 8. Prevalence rates for facial acne at examination among youths age 12-17 years, by grade of acne, race, and sex, with standard errors: United States, 1966-70

Race and sex	Severity grade of facial acne				Severity grade of facial acne			
	I	II	III	IV	I	II	III	IV
	Rate per 100 youths				Standard error			
Both sexes								
All races	39.8	25.7	2.4	0.2	1.25	1.26	0.33	0.04
White	39.3	26.2	2.7	0.2	1.26	1.27	0.34	0.04
Negro	42.2	22.7	0.5	0.1	2.53	2.51	0.16	0.10
Other	56.7	12.7	3.4	-	6.03	4.59	3.60	-
Boys								
All races	33.7	29.0	3.4	0.3	1.54	1.59	0.37	0.08
White	33.0	29.9	3.9	0.3	1.62	1.66	0.44	0.08
Negro	38.3	23.3	0.3	-	3.05	3.03	0.19	-
Other	44.3	17.1	6.2	-	9.33	6.72	6.59	-
Girls								
All races	46.0	22.3	1.4	0.1	1.24	1.22	0.35	0.04
White	45.9	22.4	1.5	0.1	1.32	1.26	0.37	0.04
Negro	46.1	22.2	0.7	0.1	2.74	2.77	0.24	0.09
Other	71.7	7.5	-	-	6.69	6.75	-	-

Table 9. Prevalence rates for facial acne at examination among youths, by geographic region, age, and sex, with standard errors: United States, 1966-70

Age and sex	Geographic region				Geographic region			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West
	Rate per 100 youths				Standard error			
Both sexes								
12-17 years	66.2	65.8	71.0	69.9	2.57	4.14	5.21	1.74
12 years	36.7	39.0	42.3	38.1	4.85	5.58	4.47	6.30
13 years	57.1	54.5	60.3	52.8	3.77	5.78	6.07	3.36
14 years	70.1	66.7	69.9	73.1	2.39	5.02	6.66	3.33
15 years	77.5	72.5	83.2	83.6	3.97	5.65	4.86	1.08
16 years	80.7	81.3	82.8	85.1	4.37	3.92	5.46	1.94
17 years	82.9	85.4	87.7	90.3	3.85	3.06	4.53	1.94
Boys								
12-17 years	64.3	63.2	70.6	68.0	3.82	3.47	4.63	3.55
12 years	20.2	23.0	33.6	26.2	6.12	4.53	4.52	4.79
13 years	50.8	48.5	49.9	44.4	4.89	6.96	7.07	6.00
14 years	73.2	63.6	69.7	74.4	4.17	3.84	7.69	4.84
15 years	84.8	69.3	84.2	86.0	3.07	7.58	5.74	3.87
16 years	84.4	87.7	91.7	92.9	3.99	2.69	3.29	3.61
17 years	85.3	94.6	94.5	91.1	6.44	2.32	2.32	3.30
Girls								
12-17 years	68.0	68.3	71.3	71.4	1.98	4.93	5.95	2.82
12 years	53.3	54.6	51.4	51.4	3.70	6.69	7.01	9.04
13 years	64.1	60.4	71.3	61.2	4.81	5.59	6.48	7.25
14 years	66.5	69.8	70.1	71.7	2.23	8.60	6.85	4.67
15 years	70.2	76.2	82.2	81.3	5.53	4.08	4.54	2.85
16 years	77.1	74.6	71.8	78.1	6.31	7.81	8.43	4.86
17 years	80.6	77.4	80.6	89.2	3.08	4.92	6.95	3.12

Table 10. Prevalence rates for gradations of facial acne and for nonacne skin lesions at examination among youths age 12-17 years, by geographic region and sex, with standard errors: United States, 1966-70

Geographic region and sex	Severity grade of facial acne				Nonacne skin lesions	Severity grade of facial acne				Severity grade of facial acne				Nonacne skin lesions
	I	II	III	IV		I	II	III	IV	I	II	III	IV	
	Observed rate per 100 youths					Expected rate per 100 youths				Standard error				
Both sexes														
Northeast	36.5	27.0	2.4	0.3	14.1	39.7	25.1	2.3	0.2	2.12	4.03	0.66	0.10	2.52
Midwest	44.7	20.1	1.0	-	11.5	39.9	25.6	2.4	0.2	2.31	3.49	0.24	-	1.96
South	32.6	35.1	2.9	0.4	17.8	39.9	26.2	2.5	0.2	3.16	3.63	0.42	0.14	1.63
West	43.9	22.1	3.7	0.2	11.3	39.8	25.7	2.5	0.2	3.51	2.75	1.71	0.11	2.13
Boys														
Northeast	29.0	31.2	3.6	0.5	16.2	33.6	28.1	3.3	0.3	2.15	5.29	0.97	0.20	3.46
Midwest	39.0	22.8	1.5	-	13.2	33.8	29.0	3.4	0.3	2.34	3.68	0.29	-	1.88
South	27.4	38.3	4.5	0.4	19.7	34.0	29.8	3.6	0.3	3.59	3.87	0.59	0.10	2.16
West	38.0	25.2	4.5	0.3	12.9	33.6	29.0	3.5	0.3	2.74	2.84	2.10	0.23	1.98
Girls														
Northeast	44.1	22.7	1.2	-	12.0	46.0	22.1	1.4	0.1	2.47	2.98	0.57	-	1.75
Midwest	50.5	17.4	0.4	-	9.7	46.0	22.2	1.3	0.1	2.43	3.83	0.32	-	2.44
South	38.0	31.6	1.2	0.5	15.7	46.1	22.5	1.4	0.1	3.23	3.73	0.37	0.21	1.42
West	50.0	18.9	2.8	-	9.7	46.1	22.4	1.4	0.1	5.72	3.56	1.37	-	2.51

Table 11. Observed and expected prevalence rates for all facial acne, moderate-severe facial acne, and nonacne skin lesions at examination among white and Negro youths age 12-17 years, by geographic region and sex, with standard errors: United States, 1966-70

Examination finding and race	Northeast			Midwest			South			West		
	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls	Both sexes	Boys	Girls
	Observed rate per 100 youths											
All grades of facial acne:												
White	65.8	64.5	67.2	65.6	63.1	68.1	74.3	75.0	73.6	69.6	67.8	71.4
Negro	69.0	63.0	73.6	67.0	64.4	70.0	61.7	58.1	65.2	71.8	69.6	74.3
Grades II-IV facial acne:												
White	30.3	36.3	23.8	21.3	24.4	18.2	43.4	50.3	36.2	26.6	31.2	21.9
Negro	25.8	27.8	24.2	19.3	23.5	14.6	24.8	23.8	25.8	19.0	17.3	21.0
Nonacne skin lesions:												
White	13.9	15.7	12.0	11.4	13.2	9.5	17.5	20.5	14.2	11.3	13.0	9.6
Negro	15.0	18.8	12.1	12.7	15.1	10.0	18.6	17.5	19.6	11.8	11.4	12.2
	Expected rate per 100 youths											
All grades of facial acne:												
White	67.7	65.9	69.6	68.2	66.7	69.8	69.7	69.2	70.2	68.5	67.0	70.0
Negro	64.9	59.9	68.7	67.2	65.3	69.4	65.3	61.1	69.4	65.2	62.2	68.6
Grades II-IV facial acne:												
White	28.6	33.0	23.8	28.8	33.8	23.8	30.2	35.9	24.2	29.2	34.2	24.1
Negro	23.0	23.0	23.0	24.4	25.5	23.0	23.1	23.2	23.0	22.9	22.8	23.0
	Standard error											
All grades of facial acne:												
White	3.05	4.34	2.49	4.29	3.28	5.44	1.50	1.46	1.75	1.58	3.37	3.01
Negro	3.63	3.11	4.90	5.17	7.95	3.88	17.00	14.46	19.98	10.94	15.11	10.18
Nonacne skin lesions:												
White	2.29	2.82	1.98	2.00	1.84	2.59	1.72	2.02	1.77	2.26	2.26	2.49
Negro	5.27	10.35	2.00	1.95	3.08	2.36	4.49	6.54	2.55	3.91	4.36	5.34

Table 12. Prevalence rates for facial acne at examination among youths, by population size of place of residence, age, and sex, with standard errors: United States, 1966-70

Age and sex	Urbanized area				Not in urbanized area			
					Urban			Rural
	3 million or more	1-2.9 million	250,000-999,999	Less than 250,000	25,000 or more	10,000-24,999	2,500-9,999	
	Rate per 100 youths							
Both sexes								
12-17 years	72.5	60.4	70.6	55.6	77.3	65.0	70.2	68.7
12 years	42.7	39.2	38.5	21.8	53.6	24.9	33.8	39.8
13 years	62.6	48.5	60.0	41.2	69.0	52.1	58.6	55.6
14 years	77.8	61.0	73.6	62.5	73.0	78.8	70.7	67.5
15 years	83.0	66.2	81.0	60.1	90.9	81.3	86.8	81.3
16 years	88.4	73.6	79.8	69.0	86.2	81.8	82.9	85.9
17 years	88.2	80.4	90.3	81.2	92.2	69.0	94.9	86.2
Boys								
12-17 years	70.1	57.7	69.4	55.4	78.7	58.9	72.4	66.9
12 years	24.3	27.0	27.7	9.2	55.3	20.2	26.0	24.0
13 years	59.8	35.2	56.1	38.8	66.6	26.1	54.9	46.0
14 years	75.0	66.9	69.8	56.5	72.4	69.8	74.4	69.9
15 years	86.3	63.1	86.3	68.4	93.5	72.2	90.9	81.8
16 years	89.5	88.3	89.6	77.4	95.4	85.2	84.0	91.9
17 years	94.0	85.2	91.4	90.4	93.6	63.2	100.0	91.8
Girls								
12-17 years	75.0	63.2	71.7	55.9	76.0	71.9	68.3	70.8
12 years	59.1	57.0	52.9	33.2	51.8	28.2	38.6	56.3
13 years	65.7	60.6	63.0	44.0	71.2	71.6	62.4	66.8
14 years	80.5	53.7	77.3	68.7	73.6	88.4	67.5	65.2
15 years	80.0	69.6	75.1	50.5	88.2	100.0	83.5	80.8
16 years	87.0	59.7	72.3	62.0	80.4	77.8	81.9	78.3
17 years	82.9	76.9	89.1	74.0	90.8	78.9	88.0	80.0
	Standard error							
Both sexes								
12-17 years	1.18	7.19	3.80	14.60	6.56	6.17	3.11	2.26
12 years	3.32	5.97	9.47	10.26	8.52	14.08	6.41	3.67
13 years	2.83	10.40	5.69	13.19	4.14	16.45	3.53	3.12
14 years	2.51	7.64	3.23	14.71	9.29	9.76	5.30	2.79
15 years	3.53	10.66	6.00	20.57	6.59	6.80	3.65	2.92
16 years	2.48	8.32	3.85	14.02	7.78	19.26	4.50	2.63
17 years	2.76	5.55	3.40	16.03	4.61	20.98	2.30	2.53
Boys								
12-17 years	1.32	6.57	1.87	12.18	6.05	10.19	3.50	2.71
12 years	4.99	7.13	9.73	4.73	9.39	17.17	8.59	3.28
13 years	3.16	12.97	11.64	16.57	9.07	22.92	5.49	3.78
14 years	3.67	6.14	3.94	11.72	12.43	19.72	8.71	3.48
15 years	3.71	14.23	4.02	28.07	4.93	7.51	4.63	3.92
16 years	1.95	4.96	5.15	9.29	4.30	20.74	7.22	2.56
17 years	2.28	10.99	3.99	8.69	6.44	24.35		3.01
Girls								
12-17 years	1.67	8.21	6.16	18.20	7.84	9.23	3.84	2.48
12 years	2.27	6.28	13.78	16.51	14.03	13.10	7.79	4.88
13 years	5.78	8.90	10.92	13.30	5.23	17.76	9.35	4.02
14 years	2.79	15.00	5.52	20.36	8.75	20.72	4.55	3.82
15 years	4.01	8.55	10.58	14.04	8.45	31.62	4.92	3.79
16 years	4.10	14.42	5.56	29.77	10.35	23.53	6.04	4.39
17 years	3.88	5.01	5.45	23.73	6.74	37.44	5.25	4.94

Table 13. Observed and expected prevalence rates for facial acne at examination among youths age 12-17 years, by grade of severity and population size of place of residence, with standard errors: United States, 1966-70

Severity grade of acne	Total	Size of place of residence							
		Urbanized area				Not in urbanized area			
						Urban			Rural
		3 million or more	1-2.9 million	250,000-999,999	Less than 250,000	25,000 or more	10,000-24,999	2,500-9,999	
	Rate per 100 youths								
Grade I									
Observed	39.8	45.4	39.0	39.1	27.6	45.5	37.0	37.2	39.7
Expected	-	39.8	39.6	40.0	40.1	40.1	39.9	40.3	39.7
Grade II									
Observed	25.7	25.7	18.9	27.4	24.6	25.7	26.2	30.1	26.9
Expected	-	25.4	25.1	26.0	25.6	25.6	26.6	25.5	25.9
Grade III									
Observed	2.4	1.3	2.3	4.1	3.1	5.5	1.8	2.7	2.0
Expected	-	2.4	2.3	2.5	2.3	2.4	2.5	2.4	2.5
Grade IV									
Observed	0.2	0.1	0.2	-	0.3	0.6	-	0.2	0.3
Expected	-	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Standard error								
Grade I	1.20	2.96	4.30	5.93	8.70	6.34	8.38	2.80	1.61
Grade II	1.70	2.49	4.08	5.26	10.91	3.98	7.96	2.98	2.53
Grade III	0.36	0.30	0.93	2.25	2.27	1.56	2.12	0.52	0.33
Grade IV	0.04	0.08	0.11	-	0.67	0.58	-	0.22	0.09

Table 14. Observed and expected prevalence rates for moderate-severe facial acne at examination among youths age 12-17 years in urbanized, nonurbanized, and rural areas, by geographic region and race, with standard errors: United States, 1966-70

Race and type of area of residence	Geographic region							
	Northeast	Midwest	South	West	Northeast	Midwest	South	West
All races[1]	Rate per 100 youths				Standard error			
Urbanized:								
Observed	29.8	20.6	37.1	24.2	4.10	3.41	9.38	5.56
Expected	26.7	26.3	27.4	27.1	---	---	---	---
Nonurbanized:								
Observed	38.7	24.6	35.6	31.2	4.68	7.44	3.31	8.12
Expected	30.2	31.0	32.6	31.6	---	---	---	---
Rural:								
Observed	26.3	20.5	40.0	25.7	11.59	6.06	3.68	3.08
Expected	27.6	29.8	29.6	28.6	---	---	---	---
White								
Urbanized:								
Observed	30.9	21.0	44.6	25.0	4.92	3.84	5.47	5.27
Expected	27.9	26.8	29.3	27.9	---	---	---	---
Nonurbanized:								
Observed	39.4	24.7	43.9	31.4	4.79	8.19	3.28	8.02
Expected	32.0	33.0	34.9	33.2	---	---	---	---
Rural:								
Observed	25.9	20.4	42.8	25.9	12.15	6.03	2.57	3.20
Expected	27.8	29.8	29.9	28.8	---	---	---	---
Negro								
Urbanized:								
Observed	25.2	18.1	27.2	19.8	3.36	2.90	12.74	12.12
Expected	23.1	24.8	22.9	23.2	---	---	---	---
Nonurbanized:								
Observed	-	49.0	7.8	-	-	34.75	2.06	-
Expected	10.0	10.2	8.8	6.8	---	---	---	---
Rural:								
Observed	40.8	32.8	27.9	18.3	20.5	23.16	11.24	12.93
Expected	26.7	31.9	27.6	26.1	---	---	---	---

[1]Includes all racial groups. Data not shown separately for racial groups other than white and Negro because the number in the sample is too small to provide reliable population estimates for them.

Table 15. Prevalence rates for facial acne and for nonacne skin lesions at examination among white and Negro youths age 12-17 years, by population size of place of residence and sex, with standard errors: United States, 1966-70

Size of place of residence and sex	Facial acne		Nonacne skin lesions		Facial acne		Nonacne skin lesions	
	White	Negro	White	Negro	White	Negro	White	Negro
	Rate per 100 youths				Standard error			
Both sexes								
Urbanized:								
3 million or more	73.0	71.1	14.8	13.5	1.11	2.87	2.26	3.42
1-2.9 million	58.9	70.1	9.1	7.6	7.26	9.56	2.29	4.27
250,000-999,999	68.4	82.2	13.3	12.9	2.88	7.41	3.28	6.29
Less than 250,000	61.9	34.4	12.3	20.6	6.61	31.15	5.51	9.63
Nonurbanized:								
25,000 or more	77.6	55.8	15.8	42.5	7.19	6.14	2.83	10.35
10,000-24,999	66.1	53.3	9.0	25.3	6.43	28.81	2.93	15.67
Less than 10,000	73.3	41.9	12.7	22.1	3.21	16.25	2.75	5.87
Rural	68.9	66.1	13.9	21.0	1.70	16.36	1.75	4.33
Boys								
Urbanized:								
3 million or more	70.4	68.4	17.5	15.7	1.21	3.37	2.66	6.12
1-2.9 million	56.1	68.0	11.6	6.7	6.13	12.37	2.69	3.25
250,000-999,999	68.9	72.9	13.9	10.2	1.73	9.86	4.39	6.90
Less than 250,000	63.5	33.1	15.5	24.3	7.79	26.28	5.60	12.19
Nonurbanized:								
25,000 or more	73.4	46.6	20.0	49.3	7.41	12.68	8.89	12.54
10,000-24,999	60.0	45.8	13.5	27.8	10.81	33.74	3.79	33.27
Less than 10,000	74.4	50.7	13.8	25.2	3.79	12.79	4.06	11.21
Rural	67.2	63.0	15.4	18.9	2.33	14.54	1.75	7.72
Girls								
Urbanized:								
3 million or more	75.6	73.4	11.9	11.5	2.01	4.09	2.98	1.55
1-2.9 million	61.8	72.8	6.7	8.6	8.88	10.49	2.06	6.26
250,000-999,999	68.0	90.0	12.6	15.2	4.58	17.20	4.39	6.38
Less than 250,000	60.5	36.2	9.5	15.6	12.17	38.56	7.22	6.91
Nonurbanized:								
25,000 or more	75.9	67.6	11.9	33.8	7.86	23.05	1.84	11.52
10,000-24,999	73.0	60.9	3.9	22.7	10.45	34.54	2.45	16.57
Less than 10,000	72.2	35.7	11.6	19.8	4.05	18.68	3.15	1.33
Rural	70.8	69.3	12.2	23.1	1.99	19.71	1.99	2.49

Table 16. Prevalence rates for facial acne at examination among youths, by annual family income, age, and sex, with standard errors: United States, 1966-70

Age and sex	Family income					
	Less than $3,000	$3,000-$4,999	$5,000-$6,999	$7,000-$9,999	$10,000-$14,999	$15,000 or more
	Rate per 100 youths					
Both sexes						
12-17 years	68.8	68.8	68.7	68.4	66.0	67.4
12 years	38.0	41.5	40.8	36.9	36.4	39.5
13 years	58.3	54.1	55.7	58.9	56.4	48.3
14 years	67.9	73.6	73.2	76.6	61.0	68.8
15 years	81.9	80.8	76.7	80.4	75.6	77.4
16 years	76.0	87.7	85.6	80.0	85.5	83.3
17 years	91.4	85.4	84.2	86.3	85.5	84.7
Boys						
12-17 years	67.4	67.4	64.3	67.0	65.8	65.3
12 years	25.8	25.3	27.9	25.6	21.7	26.2
13 years	44.3	49.1	41.0	54.0	54.1	42.7
14 years	64.5	77.3	68.8	74.8	63.6	68.1
15 years	82.6	79.7	70.7	84.2	77.0	82.4
16 years	84.0	92.8	88.7	87.3	93.3	94.1
17 years	93.6	92.2	90.6	90.3	92.3	88.6
Girls						
12-17 years	70.1	70.1	73.0	70.0	66.1	69.8
12 years	46.4	59.8	52.4	53.3	48.4	56.9
13 years	69.3	58.4	70.8	63.4	58.8	57.5
14 years	71.0	70.7	77.1	78.6	58.3	69.7
15 years	81.3	81.8	81.2	75.8	73.9	72.5
16 years	69.5	79.4	81.5	72.7	79.4	72.2
17 years	88.5	77.2	77.8	81.0	80.2	81.8
	Standard error					
Both sexes						
12-17 years	4.45	3.51	2.48	2.21	2.02	2.10
12 years	6.42	4.15	4.51	4.17	4.17	3.83
13 years	5.08	5.29	4.86	3.34	3.83	4.32
14 years	8.70	4.20	2.99	2.84	5.13	4.14
15 years	4.73	4.88	3.85	2.92	3.66	4.22
16 years	6.00	2.48	3.12	3.22	2.99	3.34
17 years	3.73	4.38	2.91	3.19	3.05	5.44
Boys						
12-17 years	4.70	3.56	3.14	2.42	1.92	3.37
12 years	8.04	4.63	5.78	4.85	3.59	6.15
13 years	8.00	7.61	5.37	3.77	5.50	5.43
14 years	11.12	4.48	4.66	3.25	5.90	7.52
15 years	5.94	7.70	5.82	4.35	3.35	8.28
16 years	4.63	3.04	3.02	3.35	2.36	4.17
17 years	4.29	3.55	4.69	3.43	3.17	5.99
Girls						
12-17 years	4.95	4.41	2.76	2.46	2.61	2.03
12 years	9.01	7.27	5.45	4.62	6.51	8.74
13 years	5.77	7.26	6.26	4.05	4.47	6.46
14 years	8.13	6.43	3.84	4.66	9.35	5.46
15 years	4.86	4.53	3.77	3.67	5.37	6.06
16 years	8.17	6.12	5.61	4.54	4.78	5.97
17 years	4.63	6.76	5.43	4.46	3.59	7.80

Table 17. Prevalence rates for gradations of facial acne and for nonacne skin lesions at examination among youths age 12-17 years, by annual family income and sex, with standard errors: United States, 1966-70

Family income and sex	Nonacne skin lesions	Severity grade of facial acne				Nonacne skin lesions	Severity grade of facial acne			
		I	II	III	IV		I	II	III	IV
Both sexes	Rate per 100 youths					Standard error				
Less than $3,000	18.2	37.2	28.6	2.6	0.4	2.06	3.03	3.04	1.39	0.23
$3,000-$4,999	12.8	40.2	25.6	2.6	0.4	1.24	2.11	1.93	0.63	0.12
$5,000-$6,999	12.8	41.0	25.0	2.5	0.2	1.64	1.62	2.31	0.50	0.11
$7,000-$9,999	12.5	39.5	26.0	2.8	0.1	1.32	1.41	1.85	0.41	0.06
$10,000-$14,999	13.5	38.5	25.6	1.7	0.2	1.40	1.91	1.55	0.54	0.14
$15,000 or more	11.9	42.3	22.4	2.6	0.1	1.19	2.52	3.31	0.62	0.10
Boys										
Less than $3,000	21.0	35.1	28.6	3.3	0.4	3.26	3.64	3.81	1.79	0.29
$3,000-$4,999	14.1	33.2	30.6	3.2	0.7	1.67	2.37	2.40	0.75	0.19
$5,000-$6,999	14.5	33.1	27.0	3.9	0.3	1.96	2.60	2.32	0.85	0.24
$7,000-$9,999	13.4	33.8	28.9	4.2	-	1.72	1.75	2.30	0.63	-
$10,000-$14,999	16.0	31.7	31.0	2.6	0.4	1.77	2.61	2.09	0.73	0.23
$15,000 or more	14.5	35.9	25.9	3.4	0.2	2.06	3.51	4.31	0.99	0.20
Girls										
Less than $3,000	15.8	39.0	28.7	2.0	0.4	1.46	3.28	3.38	1.26	0.37
$3,000-$4,999	11.5	47.4	20.6	2.1	0.1	1.48	3.63	2.24	0.75	0.14
$5,000-$6,999	11.2	48.8	23.0	1.2	-	2.02	2.13	3.08	0.25	-
$7,000-$9,999	11.4	46.2	22.5	1.2	0.1	1.36	1.87	2.26	0.49	0.13
$10,000-$14,999	11.1	44.8	20.4	0.8	0.1	1.56	2.20	1.73	0.50	0.10
$15,000 or more	9.0	49.5	18.7	1.6	-	1.63	3.15	3.21	1.20	-

Table 18. Prevalence rates for facial acne and nonacne skin lesions at examination among white and Negro youths age 12-17 years, by annual family income and sex, with standard errors: United States, 1966-70

Family income and sex	Facial acne		Nonacne lesions		Facial acne		Nonacne lesions	
	White	Negro	White	Negro	White	Negro	White	Negro
	Rate per 100 youths				Standard error			
Both sexes								
All incomes	68.5	65.5	13.1	15.9	1.57	8.23	1.03	1.91
Less than $3,000	71.2	64.7	17.4	19.6	2.22	10.11	2.71	3.46
$3,000-$4,999	70.5	64.4	12.0	14.8	2.11	10.66	1.35	2.22
$5,000-$6,999	69.2	66.7	12.6	13.6	2.54	8.21	1.69	3.30
$7,000-$9,999	68.3	67.5	12.3	14.6	2.26	5.41	1.34	3.98
$10,000-$14,999	65.5	73.8	13.5	13.5	2.07	7.36	1.52	3.49
$15,000 or more	67.2	81.3	12.0	12.3	2.21	16.07	1.28	10.21
Boys								
All incomes	67.1	61.8	15.2	16.4	1.55	7.21	1.08	3.11
Less than $3,000	71.9	60.2	22.6	18.5	2.25	9.65	4.34	5.78
$3,000-$4,999	70.1	60.6	13.2	16.1	3.15	9.67	1.53	3.06
$5,000-$6,999	64.3	65.3	14.4	13.8	2.95	10.89	1.65	6.37
$7,000-$9,999	67.0	63.0	13.2	15.8	2.57	6.90	1.72	5.98
$10,000-$14,999	65.8	63.7	15.7	25.5	1.83	10.26	1.92	7.28
$15,000 or more	65.3	73.0	14.7	13.1	3.48	39.08	2.17	12.97
Girls								
All incomes	69.9	69.1	11.0	15.3	1.87	9.59	1.12	1.19
Less than $3,000	70.5	69.2	13.1	20.7	3.61	11.31	2.09	2.98
$3,000-$4,999	70.9	68.2	10.9	13.4	3.12	12.45	1.88	3.11
$5,000-$6,999	74.0	67.9	10.8	13.4	3.01	8.40	2.23	4.03
$7,000-$9,999	69.7	73.3	11.2	13.1	2.44	9.01	1.33	4.37
$10,000-$14,999	65.2	80.8	11.5	5.1	2.90	11.26	1.71	3.76
$15,000 or more	69.3	89.2	9.0	11.8	2.05	8.50	1.71	8.96

Table 19. Prevalence rates for facial acne at examination among youths, by education of parent (head of household), and age and sex of youth, with standard errors: United States, 1966-70

Age and sex of youth	Education of parent			Education of parent		
	8 grades or less	9-12 grades	13 grades or more	8 grades or less	9-12 grades	13 grades or more
	Rate per 100 youths			Standard error		
Both sexes						
12-17 years	70.6	67.9	65.1	2.97	2.10	1.66
12 years	41.3	39.2	36.9	3.23	3.13	3.65
13 years	60.2	55.9	51.3	4.35	2.91	3.76
14 years	67.1	73.1	64.6	3.83	2.65	3.37
15 years	80.8	78.3	77.0	4.25	2.28	2.93
16 years	86.3	79.1	84.0	3.48	2.85	2.46
17 years	90.3	86.4	83.5	2.54	1.72	3.88
Boys						
12-17 years	68.5	67.0	61.5	2.94	2.04	2.44
12 years	25.8	26.7	23.0	3.76	3.22	3.95
13 years	49.9	47.8	48.4	5.87	3.08	4.55
14 years	65.6	74.3	63.1	5.23	2.98	4.35
15 years	82.2	79.6	79.4	4.83	4.43	3.28
16 years	92.7	86.4	90.5	2.07	2.43	3.11
17 years	93.6	92.9	84.5	2.42	2.14	4.34
Girls						
12-17 years	72.5	68.9	68.7	3.50	2.45	1.71
12 years	54.3	53.0	52.4	5.18	4.08	5.51
13 years	70.4	63.8	55.1	5.50	3.66	6.47
14 years	68.4	71.8	66.4	4.06	4.19	4.46
15 years	79.6	76.8	74.3	4.54	2.54	4.12
16 years	79.6	71.2	78.6	5.92	4.38	3.79
17 years	86.6	79.0	82.8	4.40	3.09	5.06

Table 20. Prevalence rates for all facial acne and moderate-severe facial acne at examination among youths age 12-17 years, by years of formal schooling completed by parent (head of household) and race of youth, with standard errors: United States, 1966-70

Highest grade completed by parent and sex of youth	Facial acne-all grades			Facial acne-grades II-IV			Facial acne-all grades		
	All races[1]	White	Negro	All races[1]	White	Negro	All races[1]	White	Negro
	Rate per 100 youths						Expected rate		
Both sexes									
8 grades or less	70.6	71.4	67.3	30.8	33.2	21.5	68.6	69.1	65.9
9-12 grades	67.9	68.3	65.2	28.8	29.2	26.4	68.0	68.3	66.2
13 grades or more	65.1	65.2	63.1	23.7	24.1	16.6	67.1	67.4	64.2
Boys									
8 grades or less	68.5	69.9	62.9	35.0	39.5	18.7	67.5	68.8	61.1
9-12 grades	67.0	67.8	61.3	33.3	34.2	28.2	66.4	67.1	62.0
13 grades or more	61.5	62.0	51.6	28.2	28.5	24.1	64.0	64.5	59.1
Girls									
8 grades or less	72.5	72.7	71.7	26.7	27.4	24.4	69.7	69.4	70.9
9-12 grades	68.9	68.8	68.9	24.0	23.9	24.6	69.8	69.6	70.4
13 grades or more	68.7	68.4	76.2	19.0	19.6	8.1	70.3	70.3	70.1
	Standard error								
Both sexes									
8 grades or less	2.97	2.01	10.84	1.82	1.83	5.64	2.97	2.01	10.84
9-12 grades	2.10	2.01	6.89	2.13	2.09	4.60	2.10	2.01	6.89
13 grades or more	1.66	1.72	6.99	1.96	2.01	4.99	1.66	1.72	6.99
Boys									
8 grades or less	2.94	2.27	10.19	2.00	2.52	6.11	2.94	2.27	10.19
9-12 grades	2.04	1.94	6.33	2.39	2.37	4.81	2.04	1.94	6.33
13 grades or more	2.44	2.55	8.38	2.78	2.98	8.51	2.44	2.55	8.38
Girls									
8 grades or less	3.50	2.85	11.92	2.17	2.10	6.45	3.50	2.85	11.92
9-12 grades	2.45	2.46	8.05	2.28	2.28	5.37	2.45	2.46	8.05
13 grades or more	1.71	1.75	11.11	2.00	1.93	6.95	1.71	1.75	11.11

[1]Includes all racial groups. Data not shown separately for racial groups other than white and Negro because the number in the sample is too small to provide reliable population estimates for them.

Table 21. Prevalence rates for facial acne at examination among youths by youths' and parents' rating of youths' present health, and by age and sex of youth, with standard errors: United States, 1966-70

Age and sex	Youth's rating of present health		Parent rating of youth's present health		Youth's rating of present health		Parent rating of youth's present health	
	Good-excellent	Poor-fair	Good-excellent	Poor-fair	Good-excellent	Poor-fair	Good-excellent	Poor-fair
Both sexes	Facial acne rate per 100 youths				Standard error			
12-17 years	67.8	74.6	67.9	73.6	1.91	3.40	1.91	3.56
12 years	39.0	37.9	38.6	54.1	2.63	8.90	2.53	9.57
13 years	55.8	59.6	56.3	44.9	2.51	9.31	2.56	9.49
14 years	69.9	69.3	69.6	70.3	2.28	7.32	2.32	9.70
15 years	78.3	92.9	78.7	84.3	2.41	2.73	2.41	5.00
16 years	82.1	93.1	82.3	93.7	2.23	3.57	2.19	5.28
17 years	86.8	83.1	86.6	87.0	1.65	7.51	1.63	7.22
Boys								
12-17 years	66.2	73.1	66.1	73.2	1.88	4.45	1.89	3.61
12 years	25.3	33.6	25.0	50.9	2.55	7.15	2.39	12.26
13 years	48.0	56.9	48.4	43.8	3.14	12.19	3.08	11.54
14 years	70.0	67.9	69.9	67.6	2.64	10.86	2.71	11.44
15 years	80.1	86.3	80.3	78.6	3.15	8.62	3.16	8.74
16 years	89.2	100.0	89.2	93.3	1.78	-	1.79	6.34
17 years	91.4	92.0	91.3	94.7	1.87	7.05	2.03	5.91
Girls								
12-17 years	69.6	75.8	69.7	73.9	2.17	3.54	2.16	4.70
12 years	53.2	41.9	52.8	56.9	3.28	13.79	3.27	19.37
13 years	64.0	61.5	64.5	45.9	2.94	11.88	2.92	14.59
14 years	69.7	71.0	69.4	73.0	3.06	9.37	3.09	12.37
15 years	76.4	95.5	77.0	88.2	2.28	2.94	2.34	5.95
16 years	74.7	89.8	75.1	94.1	3.46	5.36	3.34	8.89
17 years	82.2	73.0	82.0	74.5	2.82	13.40	2.62	16.67

Table 22. Prevalence rates for all facial acne and moderate-severe facial acne at examination among white and Negro youths age 12-17 years by youths' and parents' rating of youths' present health, and by sex of youth, with standard errors: United States, 1966-70

Examination finding and sex	Youth's rating of present health				Parent rating of present health			
	Good-excellent		Poor-fair		Good-excellent		Poor-fair	
	White	Negro	White	Negro	White	Negro	White	Negro
Facial acne-all grades	Observed rate per 100 youths							
Both sexes	68.3	64.6	76.0	72.4	68.2	65.5	75.5	68.6
Boys	66.9	60.9	76.0	69.0	66.8	62.0	77.4	62.3
Girls	69.7	68.3	76.0	75.1	69.8	69.0	73.6	73.4
Facial acne-grades II-IV								
Both sexes	29.1	23.0	31.4	25.9	28.9	22.8	37.4	30.3
Boys	34.2	23.8	36.7	19.0	33.7	23.3	48.5	25.1
Girls	23.8	22.1	27.5	31.4	23.9	22.2	26.5	34.3
Facial acne-all grades	Standard error							
Both sexes	1.63	8.53	3.37	7.33	1.64	8.39	3.17	9.70
Boys	1.64	7.32	4.13	9.59	1.63	7.32	3.62	9.95
Girls	1.90	10.38	4.18	6.95	1.94	9.96	5.10	11.27
Facial acne-grades II-IV								
Both sexes	1.79	4.56	4.09	5.04	1.77	4.53	3.96	6.89
Boys	2.14	4.98	5.22	5.63	2.14	4.80	7.84	10.99
Girls	1.77	5.29	5.36	7.60	1.76	5.30	4.59	9.05
Facial acne-all grades	Expected rate per 100 youths							
Both sexes	67.9	67.4	75.4	74.0	68.0	67.4	74.7	71.3
Boys	66.3	65.4	74.7	72.0	66.2	65.5	75.2	70.2
Girls	69.6	69.3	75.8	75.6	69.7	69.4	74.3	72.1
Facial acne-grades II-IV								
Both sexes	28.3	27.8	30.0	29.4	28.1	27.6	35.8	34.6
Boys	32.9	32.2	31.7	31.0	32.4	31.8	43.8	42.3
Girls	23.6	23.4	28.7	28.1	23.6	23.4	27.9	28.5

Table 23. Prevalence rates for facial acne at examination among youths age 12-17 years by youths' and parents' rating of youths' present health, and by geographic region and sex of youth, with standard errors: United States, 1966-70

Type of history and geographic region	Youth's present health					
	Good-excellent			Fair-poor		
	Both sexes	Boys	Girls	Both sexes	Boys	Girls
Youth's own rating	Facial acne rate per 100 youths					
Northeast	65.6	64.0	67.4	80.7	76.7	83.0
Midwest	65.3	62.6	68.0	82.7	83.6	81.8
South	70.9	70.9	71.0	71.2	65.2	76.0
West	69.9	67.8	72.1	68.4	73.3	65.4
Rating by parent						
Northeast	66.0	64.3	67.7	75.1	66.0	82.4
Midwest	65.5	62.7	68.3	76.8	84.6	68.4
South	70.9	70.5	71.3	71.4	70.6	72.5
West	69.6	67.6	71.7	74.0	73.9	74.1
Youth's own rating	Standard error					
Northeast	2.75	4.05	2.05	4.72	7.85	5.39
Midwest	4.30	3.67	5.08	5.75	5.81	9.63
South	5.22	4.49	6.22	6.39	9.49	6.80
West	1.88	3.80	2.62	9.58	10.04	9.63
Rating by parent						
Northeast	2.86	4.19	2.25	9.02	10.51	10.05
Midwest	4.17	3.53	5.00	6.04	5.41	19.54
South	5.24	4.73	5.98	6.63	5.81	8.29
West	1.78	3.67	2.88	6.77	9.42	10.18
Youth's own rating	Expected rate per 100 youths					
Northeast	67.1	65.0	69.4	72.4	70.9	73.4
Midwest	67.7	66.0	69.4	78.2	79.5	76.8
South	68.6	67.6	69.8	73.1	69.7	75.8
West	67.9	66.2	69.7	75.6	73.5	76.8
Rating by parent						
Northeast	67.3	65.1	69.5	70.4	64.6	74.9
Midwest	67.8	66.0	69.6	76.8	80.4	73.0
South	68.7	67.4	70.0	71.7	70.7	72.5
West	67.8	66.0	69.8	76.5	77.0	76.0

Table 24. Prevalence rates for facial acne at examination among youths age 12-17 years by presence or absence of allergies, and by type of allergy, age, and sex, with standard errors: United States, 1966-70

Age and sex	No allergies	Allergies, any type	Type of allergies[1]			No allergies	Allergies, any type	Type of allergies[1]		
			Asthma	Hay fever	Other allergies			Asthma	Hay fever	Other allergies
Both sexes	Facial acne rate per 100 youths					Standard error				
12-17 years--	67.5	69.9	71.3	67.1	69.8	2.03	2.25	2.61	2.87	2.5
12 years----------	38.9	39.4	39.7	27.7	41.1	2.82	3.94	5.58	6.14	5.3
13 years----------	56.1	55.4	55.8	52.4	53.5	2.65	3.77	5.17	5.87	5.1
14 years----------	68.9	72.4	76.6	71.6	69.9	2.57	3.42	4.52	6.32	4.4
15 years----------	78.8	79.5	75.5	79.7	80.4	2.47	2.95	3.43	4.76	3.7
16 years----------	82.7	82.6	86.5	81.1	81.2	2.52	2.92	3.07	5.50	4.7
17 years----------	86.8	85.2	82.5	82.1	89.6	1.82	2.93	3.86	6.90	2.9
Boys										
12-17 years----	65.8	68.0	70.0	65.7	67.5	2.08	2.23	2.97	3.07	2.5
12 years----------	24.5	30.5	29.7	19.7	34.4	2.37	4.98	7.38	8.47	6.8
13 years----------	48.9	45.6	45.7	44.6	42.9	3.39	4.61	7.79	8.76	5.4
14 years----------	69.5	71.4	79.1	62.5	67.1	3.17	3.97	6.05	6.08	6.5
15 years----------	80.6	78.5	78.1	77.4	77.7	3.18	4.79	6.17	7.94	4.9
16 years----------	88.8	91.3	94.0	91.2	91.1	2.00	2.95	3.17	5.03	4.9
17 years----------	91.7	89.8	85.2	92.9	94.2	2.34	2.58	3.97	3.95	2.7
Girls										
12-17 years----	69.3	71.8	73.0	69.0	71.8	2.20	3.09	3.50	4.81	3.3
12 years----------	53.5	49.8	56.6	41.6	47.9	3.63	6.49	10.62	12.45	6.2
13 years----------	63.3	66.5	69.6	61.5	63.7	2.96	4.84	7.05	8.94	6.9
14 years----------	68.4	73.3	74.3	85.4	72.4	3.47	4.15	6.23	8.04	5.0
15 years----------	76.9	80.5	72.6	82.6	82.9	2.52	2.95	6.92	5.45	3.6
16 years----------	76.3	74.3	77.4	67.6	73.7	3.91	5.31	6.49	10.99	7.2
17 years----------	81.8	80.9	79.4	68.4	85.6	2.77	4.57	7.72	13.04	5.4

[1]Some youths have more than one type of allergy.

Table 25. Prevalence rates for facial acne among youths taking medication regularly for skin or other disorder and those not taking medication by their parents' statement regarding medication, and by age and sex of youth, with standard errors: United States, 1966-70

Age and sex	Not treating any condition	Treating skin disorder	Treating other nonskin disorder	Not treating any condition	Treating skin disorder	Treating other nonskin disorder
	Facial acne rate per 100 youths			Standard error		
Both sexes						
12-17 years	68.0	92.7	67.8	1.85	5.21	3.39
12 years	38.8	100.0	40.8	2.40	70.71	6.48
13 years	56.4	48.8	47.9	2.54	42.99	9.20
14 years	69.2	100.0	78.4	2.38	70.71	4.15
15 years	79.1	100.0	75.5	2.10	-	7.98
16 years	82.8	88.0	75.5	2.16	11.34	6.56
17 years	86.4	100.0	88.0	1.69	-	4.31
Boys						
12-17 years	66.2	94.2	68.2	1.88	5.22	2.97
12 years	24.6	-	38.0	2.17	-	9.22
13 years	48.3	-	50.9	3.09	-	12.05
14 years	69.7	-	73.6	2.71	-	6.74
15 years	80.3	100.0	78.7	2.89	50.0	9.03
16 years	89.4	100.0	85.4	1.75	-	8.35
17 years	90.9	100.0	93.9	2.07	-	3.99
Girls						
12-17 years	69.9	91.5	67.3	2.06	8.00	4.65
12 years	53.1	100.0	45.5	3.20	70.71	11.42
13 years	64.8	100.0	44.6	2.92	70.71	11.77
14 years	68.7	100.0	83.0	3.32	70.71	6.03
15 years	77.9	80.0	73.1	2.17	-	8.38
16 years	75.9	80.0	68.6	3.20	21.93	13.25
17 years	82.0	100.0	80.9	2.69	31.62	8.09

Table 26. Prevalence rates for facial acne at examination among youths by youths' and parents' rating o youths' degree of nervousness, and by age and sex of youth, with standard errors: United States, 1966-70

Age and sex	Youth's own rating				Parent rating of youth		
	Often nervous	Sometimes nervous	Rarely nervous	Never nervous	Very nervous	Somewhat nervous	Not nervous
	Facial acne rate per 100 youths						
Both sexes							
12-17 years	77.0	69.4	68.4	62.6	71.3	68.5	67.
12 years	34.4	35.7	41.8	40.3	47.3	40.0	37.
13 years	64.7	57.8	54.2	54.1	44.6	55.8	56.
14 years	72.9	69.2	69.8	70.4	68.6	70.1	69.
15 years	86.6	80.0	77.3	78.7	78.1	79.5	78.
16 years	85.9	82.8	81.5	82.6	87.0	83.4	81.
17 years	91.8	86.0	85.8	83.3	95.7	87.8	84.
Boys							
12-17 years	76.1	67.7	67.9	60.6	70.8	64.4	67.
12 years	26.8	22.2	31.8	22.0	46.4	24.5	25.
13 years	62.0	49.3	44.5	49.6	40.5	47.0	49.
14 years	70.1	68.0	72.5	69.0	68.7	67.1	72.
15 years	91.6	80.2	76.8	84.3	72.0	79.9	81.
16 years	91.2	91.5	90.0	83.9	96.2	89.4	88.
17 years	93.8	90.6	91.6	89.6	95.1	94.4	89.
Girls							
12-17 years	77.6	70.8	69.0	65.5	71.8	72.5	67.
12 years	41.3	47.9	53.2	59.4	48.5	58.4	48.
13 years	67.4	65.0	64.8	60.0	48.4	64.6	64.
14 years	74.8	70.2	67.2	72.5	68.4	72.9	66.
15 years	83.0	79.9	77.8	68.9	85.8	79.3	75.
16 years	83.4	75.2	72.0	79.9	80.2	78.1	72.
17 years	90.2	82.2	79.3	70.2	96.6	81.8	79.
	Standard error						
Both sexes							
12-17 years	2.34	2.03	2.11	2.35	2.84	1.67	2.3
12 years	6.76	3.45	3.74	3.41	8.17	3.30	2.8
13 years	5.87	3.13	2.39	3.85	9.50	2.19	3.2
14 years	5.94	2.94	3.67	4.16	8.53	2.40	3.2
15 years	3.11	2.65	2.99	4.16	7.37	2.33	2.7
16 years	5.24	2.37	2.50	3.85	5.37	2.26	2.7
17 years	2.34	2.29	2.04	5.32	2.68	2.19	2.4
Boys							
12-17 years	3.58	2.24	2.38	2.53	4.17	2.02	2.1
12 years	7.08	3.72	3.53	3.71	12.89	3.43	2.8
13 years	10.45	3.60	4.15	4.67	11.03	3.44	3.6
14 years	9.45	3.83	4.02	4.47	9.46	3.72	3.3
15 years	4.61	3.71	4.15	4.13	8.77	3.40	3.5
16 years	5.34	1.42	1.87	4.86	3.97	1.96	2.4
17 years	3.96	3.03	1.91	4.30	4.62	1.76	2.5
Girls							
12-17 years	2.28	2.23	2.21	3.34	3.26	1.76	2.8
12 years	9.84	4.53	4.49	4.30	12.17	3.79	3.5
13 years	7.44	4.02	2.84	5.14	12.16	2.51	4.0
14 years	7.70	3.96	4.31	6.86	13.40	3.20	4.3
15 years	4.87	2.54	3.35	5.76	10.62	2.64	2.9
16 years	6.77	4.51	3.85	4.92	7.12	3.36	4.7
17 years	2.87	3.96	3.58	10.13	3.64	3.98	3.2

Table 27. Prevalence rates for facial acne at examination among youths age 12-17 years by youths' and parents' rating of youths' degree of nervousness, and by race and sex of youth, with standard errors: United States, 1966-70

Race and sex	Youth's own rating				Parent rating of youth		
	Often nervous	Sometimes nervous	Rarely nervous	Never nervous	Very nervous	Somewhat nervous	Not nervous
	Facial acne rate per 100 youths						
Both sexes[1]	77.0	69.4	68.4	62.6	71.3	68.5	67.4
White	77.4	69.7	67.9	63.7	71.4	68.7	68.0
Negro	73.3	67.5	73.0	59.5	70.7	67.3	63.9
Boys[1]	76.1	67.7	67.9	60.6	70.8	64.4	67.8
White	77.0	68.2	67.7	62.2	73.0	64.9	68.6
Negro	69.0	64.8	69.4	55.9	60.0	60.2	63.2
Girls[1]	77.6	70.8	69.0	65.5	71.8	72.5	67.0
White	77.7	71.0	68.2	65.9	69.6	72.4	67.4
Negro	76.6	69.7	76.4	63.9	84.2	72.7	64.6
	Standard error						
Both sexes[1]	2.34	2.03	2.11	2.35	2.84	1.67	2.31
White	2.43	1.56	2.15	1.46	3.23	1.59	1.78
Negro	11.62	9.49	5.02	8.13	8.20	6.92	9.93
Boys[1]	3.58	2.24	2.38	2.53	4.17	2.02	2.14
White	3.86	1.98	2.30	2.31	4.47	1.95	1.82
Negro	15.92	9.36	5.43	7.35	10.25	7.81	7.83
Girls[1]	2.28	2.23	2.21	3.34	3.26	1.76	2.84
White	2.46	1.82	2.30	3.05	3.64	1.63	2.39
Negro	9.24	10.82	8.69	9.67	10.87	7.59	12.69

[1] Includes all racial groups—white, Negro, and other.

Table 28. Prevalence rates for facial acne at examination among youths age 12-17 years, by youths' own rating of degree of nervousness and geographic region, with standard errors: United States, 1966-70

Geographic region	Youth's own rating			
	Often nervous	Sometimes nervous	Rarely nervous	Never nervous
All youths	Rate per 100 youths			
Northeast	75.2	69.0	66.6	59.4
Midwest	74.4	66.5	65.6	59.9
South	75.7	72.6	73.0	65.1
West	82.7	69.9	70.0	65.1
All youths	Standard error			
Northeast	3.35	3.35	2.57	2.33
Midwest	5.07	3.02	6.39	3.73
South	6.07	5.82	3.29	7.13
West	3.04	2.63	2.61	4.85

Table 29. Prevalence rates for facial acne at examination among youths, by teachers' ratings of youths' adjustment in school and need of special resources for the emotionally disturbed, age, and sex, with standard errors: United States, 1966-70

Age and sex	School rating of adjustment			Needs special resources for emotionally disturbed	Does not need such special resources	School rating of adjustment			Needs special resources for emotionally disturbed	Does not need such special resources
	Well adjusted	Somewhat maladjusted	Seriously maladjusted			Well adjusted	Somewhat maladjusted	Seriously maladjusted		
	Facial acne rate per 100 youths					Standard error				
Both sexes										
12-17 years	67.7	66.0	73.6	60.0	67.6	1.96	2.00	4.61	4.80	1.90
12 years	41.2	34.6	25.0	26.1	38.9	2.77	4.17	13.11	11.63	2.73
13 years	54.8	57.8	63.8	45.0	56.4	2.77	3.42	13.29	11.76	2.46
14 years	69.1	67.4	81.9	75.2	69.4	2.73	3.09	12.78	11.90	2.57
15 years	79.2	77.5	78.9	81.4	78.7	2.33	3.60	7.27	12.23	2.06
16 years	82.5	86.6	90.8	75.2	82.9	2.26	3.89	10.85	21.92	2.16
17 years	86.3	87.9	91.8	100.0	86.4	1.93	3.52	7.62	-	1.69
Boys										
12-17 years	65.9	63.5	72.6	59.1	65.8	2.00	2.37	5.58	4.14	1.86
12 years	27.8	25.0	12.0	30.6	25.8	2.78	4.06	11.31	15.97	2.52
13 years	46.4	51.7	61.7	40.4	48.8	3.45	5.38	14.92	12.50	3.06
14 years	68.0	66.8	86.6	81.6	69.2	3.48	4.20	14.38	12.96	2.87
15 years	81.2	76.2	81.0	79.1	79.8	3.33	5.74	6.56	15.41	2.96
16 years	89.8	93.4	80.1	40.8	89.8	1.84	2.32	17.49	41.33	1.88
17 years	89.5	95.4	100.0	100.0	91.2	2.65	2.43	-	22.36	2.09
Girls										
12-17 years	69.4	69.8	75.4	62.0	69.5	2.23	2.82	7.49	12.53	2.17
12 years	53.3	53.3	46.1	14.2	52.6	3.47	8.04	35.40	30.79	3.58
13 years	62.6	66.9	69.0	60.6	64.0	3.27	5.19	35.32	39.97	2.85
14 years	70.1	68.5	68.8	41.7	69.6	3.51	6.87	33.82	41.45	3.23
15 years	77.0	78.9	74.6	85.7	77.5	2.25	6.39	17.61	24.10	2.09
16 years	75.3	78.0	100.0	88.0	75.7	3.57	6.93	22.36	45.92	3.28
17 years	83.3	74.5	77.6	100.0	81.7	3.05	9.92	30.96	70.71	2.78

Table 30. Prevalence rates for facial acne (all grades) at examination among youths age 12-17 years by youths' report of problems with sleep, and by race and sex of youth, with standard errors: United States, 1966-70

Race and sex	Youth reports trouble sleeping			Youth reports having nightmares			Youth reports:	
	Often	Sometimes	Never	Often	Sometimes	Never	Walks in sleep	Does not walk in sleep
	Rate per 100 youths							
Both sexes[1]	67.5	69.6	67.0	63.2	65.6	70.4	59.2	68.6
White	67.6	69.8	67.5	63.7	66.1	70.7	58.2	69.1
Negro	66.3	68.0	63.7	61.2	61.7	68.5	68.6	65.2
Boys[1]	70.1	66.9	65.7	61.9	60.9	70.3	58.1	67.[illegible]
White	70.9	67.3	66.6	61.0	62.2	70.7	57.2	67.5
Negro	63.8	63.4	60.4	65.1	52.0	68.0	67.9	61.3
Girls[1]	65.2	71.9	68.5	64.4	69.6	70.4	61.0	70.2
White	64.6	71.9	68.6	66.1	69.5	70.6	60.0	70.4
Negro	68.4	71.8	67.3	56.6	70.1	69.1	69.3	69.0
	Standard error							
Both sexes[1]	2.71	2.11	1.95	3.21	2.28	1.77	3.27	1.92
White	2.16	2.13	1.33	3.76	2.04	1.40	3.42	1.60
Negro	12.97	6.94	8.73	9.00	7.96	9.30	7.22	8.38
Boys[1]	3.48	2.29	1.93	4.81	2.50	1.61	2.52	1.89
White	3.08	2.16	1.59	7.27	2.38	1.20	2.58	1.62
Negro	17.73	6.35	7.47	11.49	6.98	8.90	10.57	7.41
Girls[1]	3.14	2.20	2.54	6.81	2.31	2.42	7.12	2.19
White	2.63	2.34	1.88	8.01	2.08	2.24	7.11	1.90
Negro	13.68	8.18	10.90	11.07	10.13	10.11	15.37	9.71

[1]Includes all racial groups—white, Negro, and other.

Table 31. Prevalence rates for facial acne at examination among youths age 12-17 years, by eating habits of youths (as reported by parents), race, and sex, with standard errors: United States, 1966-70

Race and sex	Facial acne-all grades						Moderate-severe facial acne					
	Parent states youth eats			Parent states youth's eating habits are:			Parent states youth eats			Parent states youth's eating habits are:		
	Too much	Right amount	Too little	Not fussy	A little fussy	Very fussy	Too much	Right amount	Too little	Not fussy	A little fussy	Very fussy
	Rate per 100 youths											
Both sexes[1]	74.0	67.6	62.9	69.0	67.1	68.4	29.8	28.4	23.7	29.4	26.4	31.6
White	75.8	67.9	62.7	69.8	67.1	68.4	29.8	29.3	24.8	30.5	27.1	31.8
Negro	67.2	65.4	64.0	63.4	67.4	68.2	30.5	21.9	19.8	22.4	21.5	31.5
Boys[1]	71.5	66.5	54.8	68.4	64.4	65.6	31.1	33.4	24.0	34.1	31.4	30.9
White	74.3	67.0	54.7	69.8	64.7	63.4	33.9	34.7	24.4	35.5	33.1	30.6
Negro	60.8	63.0	55.1	59.5	61.6	73.4	20.3	24.2	21.9	25.3	18.1	31.9
Girls[1]	76.2	68.8	69.1	69.6	69.8	71.1	28.7	22.9	23.6	24.5	21.5	32.4
White	77.1	68.8	68.9	69.7	69.5	73.1	26.5	23.5	25.0	25.4	21.1	32.9
Negro	72.9	68.0	69.7	67.6	72.4	62.6	39.5	19.4	18.3	19.4	24.4	31.1
	Standard error											
Both sexes[1]	2.52	1.85	2.59	2.29	1.79	2.81	2.94	1.74	2.11	1.98	1.73	3.17
White	2.07	1.63	2.19	1.75	1.72	2.57	2.91	1.77	2.23	1.96	1.88	2.95
Negro	9.18	8.57	7.32	10.72	6.34	7.87	7.42	4.48	3.90	6.31	3.20	6.56
Boys[1]	3.00	1.85	3.68	2.51	1.88	3.26	3.11	2.06	3.41	2.32	2.10	4.16
White	2.93	1.56	3.81	1.96	1.84	2.92	3.65	2.11	3.71	2.50	2.29	3.59
Negro	6.42	8.43	9.30	10.83	5.45	6.80	5.60	5.57	7.18	7.07	4.19	9.15
Girls[1]	3.53	2.06	3.72	2.51	2.19	3.82	3.94	1.65	2.46	1.92	1.69	2.63
White	2.48	2.01	3.61	2.15	2.13	4.01	3.35	1.70	2.98	1.74	1.78	3.47
Negro	13.50	9.14	9.63	11.43	7.79	11.65	7.42	4.48	3.90	6.31	4.58	4.89

[1] Includes all racial groups—white, Negro, and other.

Table 32. Prevalence rates for facial acne at examination among youths age 12-17 years, by eating habits of youths (as reported by parents), geographic region, and sex, with standard errors: United States, 1966-70

Region and sex	Parent states youth eats			Parent states youth eats		
	Too much	Right amount	Too little	Too much	Right amount	Too little
	Rate per 100 youths			Standard error		
Both sexes						
Northeast	71.7	66.2	52.0	3.42	2.66	4.95
Midwest	75.1	64.7	60.8	4.17	4.38	3.71
South	70.1	71.4	66.9	9.04	4.68	6.90
West	78.2	68.6	68.4	3.12	1.85	4.30
Boys						
Northeast	67.5	65.2	44.6	6.23	3.63	7.77
Midwest	73.9	62.1	61.2	3.05	3.48	6.02
South	62.4	72.5	55.9	8.64	4.62	6.91
West	79.2	66.8	56.0	4.22	3.65	13.91
Girls						
Northeast	75.4	67.3	58.9	2.65	2.29	6.87
Midwest	76.0	67.5	60.4	5.48	5.53	4.66
South	76.1	70.1	74.8	13.65	4.79	7.23
West	77.2	70.5	75.3	6.34	2.86	5.03

Table 33. Prevalence rates for facial acne at examination among youths, by age, sex, and index-stage of sexual maturity, with percent distribution of index-stage of sexual maturity at each year of age, and with standard errors: United States, 1966-70

Age and sex	Index-stage of sexual maturity					Index-stage of sexual maturity					
	1	2	3	4	5	All stages	1	2	3	4	5
	Facial acne rate per 100 youths						Percent distribution				
Both sexes											
12-17 years	13.0	33.1	56.8	74.6	86.1	100.0	6.2	10.6	14.3	32.2	36.7
12 years	13.0	28.6	50.7	69.7	84.2	100.0	24.0	31.4	24.8	16.5	3.3
13 years	10.2	35.6	54.4	72.2	79.1	100.0	8.0	20.7	26.0	33.5	11.8
14 years	16.4	40.8	62.2	73.7	80.4	100.0	2.7	6.5	18.5	44.8	27.5
15 years	43.7	48.2	59.4	76.4	87.0	100.0	0.4	1.7	9.6	42.0	46.3
16 years	-	61.1	76.6	74.0	88.0	100.0	-	0.6	2.9	35.3	61.2
17 years	-	-	84.2	82.6	87.6	100.0	-	-	1.7	21.1	77.2
Boys											
12-17 years	11.1	31.0	56.5	78.4	90.0	100.0	10.0	15.4	11.5	23.9	39.2
12 years	10.2	26.0	43.7	69.8	100.0	100.0	37.0	42.5	14.3	5.7	0.5
13 years	10.5	32.3	54.3	74.6	82.4	100.0	14.2	30.4	23.9	24.4	7.1
14 years	14.7	40.2	67.9	76.7	83.8	100.0	4.8	11.2	17.8	39.5	26.7
15 years	43.7	45.0	53.2	78.0	89.0	100.0	0.8	3.0	8.0	37.9	50.3
16 years	-	61.1	75.2	81.4	93.0	100.0	-	1.3	2.8	23.8	72.1
17 years	-	-	100.0	93.1	90.9	100.0	-	-	0.5	11.9	87.6
Girls											
12-17 years	22.0	38.8	57.0	72.3	81.5	100.0	2.2	5.7	17.2	40.8	34.1
12 years	23.5	34.4	53.5	69.7	82.9	100.0	10.6	20.0	35.5	27.6	6.3
13 years	7.3	45.2	54.5	70.9	77.7	100.0	1.5	10.7	28.2	42.9	16.7
14 years	30.9	44.5	56.8	71.3	77.1	100.0	0.6	1.6	19.1	50.4	28.3
15 years	-	68.7	63.8	75.0	84.6	100.0	-	0.5	11.2	46.1	42.2
16 years	-	-	78.0	70.1	80.6	100.0	-	-	3.0	47.1	49.9
17 years	-	-	81.7	78.4	83.1	100.0	-	-	2.9	30.4	66.7
	Standard error										
Both sexes											
12-17 years	1.77	2.33	3.03	2.25	1.69	...	0.39	0.52	0.78	1.12	1.61
12 years	2.41	2.38	5.18	4.90	5.66	...	1.38	2.31	1.72	1.27	0.56
13 years	3.16	3.71	3.32	3.61	3.00	...	1.20	1.15	1.53	1.66	1.52
14 years	5.71	6.78	4.09	2.85	3.85	...	0.40	0.89	1.89	1.69	2.70
15 years	29.27	14.02	6.69	2.35	2.39	...	0.17	0.41	1.16	2.77	3.22
16 years	-	35.96	6.54	3.46	2.23	...	-	0.32	0.69	2.77	2.82
17 years	-	-	12.34	2.67	1.75	...	-	-	0.48	1.20	1.48
Boys											
12-17 years	1.79	3.19	3.85	2.61	1.65	...	0.69	0.70	0.71	1.28	1.67
12 years	2.75	3.47	6.64	6.41	31.62	...	2.49	2.83	1.59	0.97	0.29
13 years	3.41	4.09	4.13	5.57	5.45	...	2.00	1.59	2.28	1.87	1.18
14 years	6.03	7.87	5.27	3.98	3.69	...	0.80	1.63	2.31	2.66	3.13
15 years	29.27	14.69	10.05	2.33	3.78	...	0.34	0.74	1.35	4.08	4.18
16 years	-	35.96	13.59	3.79	1.82	...	-	0.63	0.89	2.63	2.74
17 years	-	-	50.00	4.11	1.98	...	-	-	0.27	2.13	2.17
Girls											
12-17 years	4.99	3.71	3.12	2.53	2.09	...	0.24	0.58	1.21	1.48	1.87
12 years	5.72	4.01	5.48	5.80	6.07	...	1.06	2.51	2.25	2.44	1.14
13 years	11.20	7.75	4.41	3.82	3.61	...	0.59	1.43	2.00	2.89	2.27
14 years	23.83	13.65	5.15	3.54	5.95	...	0.40	0.54	2.97	2.47	3.14
15 years	-	40.15	6.28	3.30	2.46	...	-	0.28	1.89	2.95	3.68
16 years	-	-	8.36	4.42	3.74	...	-	-	1.00	3.79	3.94
17 years	-	-	14.58	3.76	3.23	...	-	-	0.91	1.80	1.83

Table 34. Prevalence rates for facial acne and expected rates among white and Negro youths age 12-17 years, by index-stage of sexual maturity and sex, with standard errors: United States, 1966-70

Index-stage of sexual maturity and sex	Race		Race		Race	
	White	Negro	White	Negro	White	Negro
Both sexes	Rate per 100 youths		Expected rate		Standard error	
Stage 1	12.3	20.1	13.0	13.4	1.84	4.72
Stage 2	34.0	27.9	33.2	32.5	2.38	7.67
Stage 3	58.0	46.7	56.7	57.2	2.96	10.27
Stage 4	75.4	69.1	74.6	74.3	1.65	11.31
Stage 5	86.8	82.3	86.3	85.2	1.62	5.84
Boys						
Stage 1	10.2	18.8	11.0	11.8	1.76	4.70
Stage 2	32.4	23.2	30.9	31.3	3.14	7.84
Stage 3	57.7	48.2	56.5	56.6	3.92	12.33
Stage 4	79.4	71.8	78.4	78.4	2.38	10.75
Stage 5	90.9	84.5	90.1	89.6	1.53	5.13
Girls						
Stage 1	21.7	28.7	21.8	23.5	5.21	16.57
Stage 2	38.1	51.7	38.9	38.4	4.03	16.96
Stage 3	58.3	45.5	56.8	57.6	3.08	9.85
Stage 4	72.9	67.5	72.4	71.9	2.06	12.00
Stage 5	81.7	80.3	81.5	81.3	2.21	7.05

Table 35. Percent distribution of age at onset of menarche by age at which acne started among girls age 12-17 years, with standard errors: United States, 1966-70

Age at onset of menarche	Total	Age acne started									Percent distribution of age of onset of menarche	Median age of start of acne
		9 years or less	10 years	11 years	12 years	13 years	14 years	15 years	16 years	17 years		
	Percent distribution											Year
Total girls, 12-17 years	100.0	2.2	5.4	16.1	28.1	27.5	13.7	5.0	1.8	0.2	100.0	13.3
9 years or less	100.0	4.9	31.1	15.3	20.9	15.7	6.2	5.9	-	-	1.4	11.9
10 years	100.0	5.8	20.4	19.9	28.0	13.4	8.3	4.2	-	-	4.5	12.1
11 years	100.0	3.9	12.3	30.8	28.5	12.9	7.9	2.0	1.4	0.3	19.7	12.1
12 years	100.0	2.9	2.6	14.5	40.0	23.8	10.2	4.6	1.2	0.2	36.4	12.8
13 years	100.0	0.6	1.4	4.8	16.6	48.4	20.7	4.7	2.3	0.5	28.9	13.5
14 years	100.0	-	-	1.7	11.6	28.7	37.2	17.5	3.3	-	7.0	14.2
15 years	100.0	-	-	8.8	18.1	18.4	11.5	24.5	18.7	-	1.2	14.4
16 years	100.0	-	-	-	-	-	33.0	37.7	29.3	-	0.3	15.4
17 years	-	-	-	-	-	-	-	-	-	-	-	-
	Standard error											
9 years or less	...	5.75	13.56	9.81	14.28	10.65	6.68	6.52	-	-	---	---
10 years	...	1.92	4.01	6.00	5.08	5.13	3.00	2.54	-	-	---	---
11 years	...	1.67	2.03	2.36	2.38	2.28	1.75	0.90	0.76	0.34	---	---
12 years	...	0.95	0.84	1.40	2.28	2.33	1.88	1.07	0.54	0.18	---	---
13 years	...	0.37	0.62	1.03	2.16	2.25	2.23	1.43	0.72	0.35	---	---
14 years	...	-	-	1.42	4.46	3.60	3.83	2.09	1.58	-	---	---
15 years	...	-	-	8.23	12.43	7.03	6.48	9.82	10.12	-	---	---
16 years	...	-	-	-	-	-	24.78	44.37	22.38	-	---	---
17 years	...	-	-	-	-	-	-	-	-	-	---	---

APPENDIX I

STATISTICAL NOTES

The Survey Design

The sample design for the first three programs or Cycles I-III of the Health Examination Survey has been essentially similar in that each has been a multistage, stratified probability sample of clusters of households in land-based segments. The successive elements for this sample design are primary sampling units, census enumeration district, segment (a cluster of households), eligible persons, and finally, the sample person.

The 40 sample areas and the segments utilized in the design of Cycle III were the same as those in Cycle II. Previous reports describe in detail the sample design used for Cycle II and in addition discuss the problems and considerations given to other types of sampling frames, cluster versus random sampling, and whether or not to control the selection of siblings.[4,5]

Requirements and limitations placed on the design for Cycle III, similar to those for children in Cycle II, were that:

1. The target population be defined as the civilian noninstitutional population of the United States, including Alaska and Hawaii, between the ages of 12 and 17 years for Cycle III, with the special exclusion of children residing on reservation lands of the American Indians. The latter exclusion was due to operational problems encountered on these lands in Cycle I.
2. The time period of data collection be limited to about 3 years for each cycle and the length of the individual examination within the specially constructed mobile examination center be between 2 and 3 hours.
3. Ancillary data be collected on specially designated households, from medical history and school questionnaires and from birth certificate copies.
4. Examination objectives be primarily related to factors of physical and intellectual growth and development.
5. The sample be sufficiently large to yield reliable findings within broad geographic regions and population density groups as well as age, sex, and limited socioeconomic groups for the total sample.

The sample was drawn jointly with the Bureau of the Census starting with the 1960 decennial census list of addresses and the nearly 1,900 primary sampling units (PSU's) into which the entire United States was divided. Each PSU is either a standard metropolitan statistical area (SMSA), a county, or a group of two or three contiguous counties. These PSU's were grouped into 40 strata, with each stratum having an average size of about 4.5 million persons, in such a manner as to maximize the degree of homogeneity within strata with regard to the population size of the PSU's, degree of urbanization, geographic proximity, and degree of industrialization. The 40 strata were then classified into 4 broad geographic regions of 10 strata each and then, within each region, cross-classified by four population density classes and classes of rate of population change from 1950 to 1960. Using a modified Goodman-Kish controlled-selection technique, one PSU was drawn from each of the 40 strata.

Further stages of sampling within PSU's required first the selection of census enumeration districts (ED's). The ED's are small well-defined areas of about 250 housing units into which the entire Nation was divided for the 1960 population census. Each ED was assigned a "measure of size" equal to the rounded whole number resulting from a "division by nine" of the number of children, aged 5-9, in the ED at the time of the 1960 census. A sample of 20 ED's in the sample PSU were selected by systematic sampling with each ED having a probability of selection proportional to the population of children 5-9 years at the time of the 1960 census date. A further random selection by size of segments (smaller clusters of housing units) within each ED was then made.

Because of the 3-year time interval between Cycle II and Cycle III, the Cycle III frame had to be supplemented for new construction and to compensate for segments where housing was partially or totally demolished to make room for highway construction or urban redevelopment.

Advanced planning for the examinations at the various locations or stands provided for about 17 days of examinations which limited the number of examinees per location to approximately 200. When the number of eligible youths in the sample drawn for a particular location exceeded this number, subsampling was done by deleting from the master list of eligible youths (ordered by segment, household order within segment, and age within household) every *n*th name on the list starting with the *y*th name, *y* being a number between 1 and *n* selected randomly and *n* being the extent of oversampling in the original draw.

In Cycle III, as in Cycle II, twins who were deleted in the sample selection were also scheduled for examination, time permitting, as were youths deleted from the Cycle III sample who had been examined in Cycle II.

The sample was selected in Cycle III, as it had been for the children in Cycle II, so as to contain the correct proportion of youths from families having only one eligible youth, two eligible youths, and so on to be representative of the total target population. However, since households were one of the elements in the sample frame, the number of related youths in the resultant sample is greater than would come from a design which sampled youths 12-17 years without regard to household. The resultant estimated mean measurements or rates should be unbiased but their sampling variability will be somewhat greater than those from more costly, time-consuming systematic sample design in which, every *k*th youth would be selected.

The total probability sample for Cycle III included 7,514 youths representative of the approximately 22.7 million noninstitutionalized United States youths of 12-17 years. The sample contained youths from 25 different States with approximately 1,000 in each single year of age.

The response rate in Cycle III was 90 percent, with 6,768 youths examined out of the total sample. These examinees were closely representative of those in the samples as well as the population from which the samples were drawn with respect to age, sex, race, region, population density, and population growth in area of residence. Hence it appears unlikely that nonresponse could bias the findings appreciably. The number of examinees and the population which the sample was selected to represent are shown by age and sex in table I.

Measures used to control the quality of the data from these Surveys have been cited previously; [5,29] those additional measures specifically related to the

Table I. Number of examinees and estimated U.S. population frequency distribution of youths in the noninstitutional population of the United States, by race, age, and sex: Health Examination Survey, 1966-70

Age and sex	Total	White	Negro	Other races	Total	White	Negro	Other races
	Number of examinees				Population in thousands			
Both sexes								
12-17 years	6,768	5,735	999	34	22,692	19,552	3,024	116
Boys								
12-17 years	3,545	3,047	479	19	11,489	9,929	1,496	64
12 years	643	540	101	2	2,032	1,747	280	5
13 years	626	542	80	4	2,006	1,729	262	15
14 years	618	527	88	3	1,951	1,686	256	9
15 years	613	525	84	4	1,900	1,646	241	13
16 years	556	496	57	3	1,836	1,594	231	11
17 years	489	417	69	3	1,764	1,528	225	11
Girls								
12-17 years	3,223	2,688	520	15	11,203	9,623	1,527	53
12 years	547	455	88	4	1,970	1,685	272	14
13 years	582	490	91	1	1,946	1,667	275	4
14 years	586	484	101	1	1,901	1,633	266	2
15 years	503	425	73	5	1,851	1,594	235	21
16 years	536	441	93	2	1,789	1,542	243	5
17 years	469	393	74	2	1,746	1,502	237	7

particular examinations, tests, or measurements are outlined in the analytic reports describing and presenting the respective initial findings.

Reliability

While measurement processes in the Surveys were carefully standardized and closely controlled, the correspondence between the real world and Survey results cannot be expected to be exact. Survey data are imperfect for three major reasons: (1) results are subject to sampling error, (2) the actual conduct of a survey never agrees perfectly with the design, and (3) the measurement processes themselves are inexact even though standardized and controlled.

The first report on Cycle III [5] describes in detail the faithfulness with which the sampling design was carried out.

Data recorded for each sample youth are inflated in the estimation process to characterize the larger universe of which the sample youth is representative. The weights used in this inflation process are a product of the reciprocal of the probability of selecting the youth, an adjustment for nonresponse cases, and a poststratified ratio adjustment which increases precision by bringing survey results into closer alignment with known United States population figures by color and sex within single years of age 12 through 17 for the youths' survey.

In the third cycle of the Health Examination Survey (as for the children in Cycle II) the samples were the result of three principal stages of selection—the single PSU from each stratum, the 20 segments from each sample PSU, and the sample youth from the eligible persons. The probability of selecting an individual youth is the product of the probability of selection at each stage.

Since the strata are roughly equal in population size and a nearly equal number of sample youths were examined in each of the sample PSU's, the sample design is essentially self-weighting with respect to the target population; that is, each youth 12 through 17 years had about the same probability of being drawn into the sample.

The adjustment upward for nonresponse is intended to minimize the impact of nonresponse on final estimates by imputing to nonrespondents the characteristics of "similar" respondents. Here "similar" respondents were judged to be examined youths in a sample PSU having the same age (in years) and sex as youths not examined in that sample PSU.

The poststratified ratio adjustment used in the second and third cycle achieved most of the gains in precision which would have been attained if the sample had been drawn from a population stratified by age, color, and sex and makes the final sample estimates of population agree exactly with independent controls prepared by the Bureau of the Census for the U.S. noninstitutionalized population as of March 9, 1968 (approximate midsurvey point for Cycle III), by color and sex for each single year of age 12-17. The weights of every responding sample youth in each of the 24 age, color, and sex classes are adjusted upwards or downwards so that the weighted total within the class equals the independent population control for each survey.

Sampling and Measurement Error

In the present report, reference has been made to efforts to minimize bias and variability of measurement techniques.

The probability design of the Survey makes possible the calculation of sampling errors. The sampling error is used here to determine how imprecise the survey test results may be because they come from a sample rather than from the measurements of all elements in the universe.

The estimation of sampling errors for a study of the type of the Health Examination Survey is difficult for at least three reasons: (1) measurement error and "pure" sampling error are confounded in the data—it is not easy to find a procedure which will either completely include both or treat one or the other separately, (2) the survey design and estimation procedure are complex and accordingly require computationally involved techniques for the calculation of variances, and (3) are coming from the survey thousands of statistics, many for subclasses of the population for which there are a small number of cases. Estimates of sampling error are obtained from the sample data and are themselves subject to sampling error which may be large when the number of cases in a cell is small or even occasionally when the number of cases is substantial.

Estimates of approximate sampling variability for selected statistics used in this report are included in the detailed tables. These estimates have been prepared by a replication technique which yields overall variability through observation of variability among random subsamples of the total sample. [29] The method reflects both "pure" sampling variance and a part of the measurement variance.

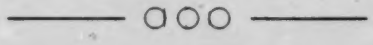
In accordance with usual practice, the interval estimate for any statistic may be considered the range within one standard error of the tabulated statistic, with 68 percent confidence; or the range within two standard errors of the tabulated statistic, with 95 percent confidence. The latter is used as the level of significance in this report.

An approximation of the standard error of a difference $d = x - y$ of two statistics x and y is given by the formula $S_d = \left(S_x^2 + S_y^2\right)^{1/2}$ where S_x and S_y are the sampling errors, respectively, of x and y. Of course, where the

two groups or measures are positively or negatively correlated, this will give an overestimate or underestimate, respectively, of the actual standard error.

Small Numbers

In some tables magnitudes are shown for cells for which the sample size is so small that the sampling error may be several times as great as the statistic itself. Obviously in such instances the statistic has no meaning in itself except to indicate that the true quantity is small. Such numbers, if shown, have been included in the belief that they may help to convey an impression of the overall story of the table.



APPENDIX II

DEMOGRAPHIC AND SOCIOECONOMIC TERMS

Age.—The age recorded for each youth was the age at last birthday on the date of examination. The age criterion for inclusion in the sample used in this survey was defined in terms of age at time of interview. Since the examination usually took place 2 to 4 weeks after the interview some of those who were 17 years old at the time of interview became 18 years old by the time of examination. There were 23 such cases. In the adjustment and weighting procedures used to produce national estimates these 23 were included in the 17 year group.

Race.—Race was recorded as "white," "Negro," or "other." "Other" included American Indians, Chinese, Japanese, and all races other than white or Negro. Mexican persons were included with "white" unless definitely known to be American Indian or of other nonwhite race. Negroes and persons of mixed Negro and other parentage were recorded as "Negro."

Geographic region.—For purposes of stratification the United States was divided into four geographic regions of approximately equal population. These regions, which correspond closely to those used by the Bureau of the Census, were as follows:

Region	*States Included*
Northeast	Maine, Vermont, New Hampshire Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania
Midwest	Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, and Missouri
South	Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Arkansas
West	Washington, Oregon, California, Nevada, New Mexico, Arizona, Texas, Oklahoma, Kansas, Nebraska, North Dakota, South Dakota, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, and Hawaii

Urban-Rural.—The definition of urban-rural areas was the same as that used in the 1960 Census. According to this definition, the urban population was comprised of all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, villages, and towns (except towns in New England, New York, and Wisconsin); (b) the densely settled urban fringe, whether incorporated or unincorporated of urbanized areas; (c) towns in New England and townships in New Jersey and Pennsylvania which contained no incorporated municipalities as subdivisions and had either 2,500 inhabitants or more, or a population of 2,500 to 25,000 and a density of 1,500 persons or more per square mile; (d) counties in States other than the New England States, New Jersey, and Pennsylvania that had no incorporated municipalities within their boundaries and had a density of 1,500 persons or more per square mile; and (e) unincorporated places of 2,500 inhabitants or more not included in any urban fringe. The remaining population was classified as rural.

Urban areas are further classified by population size for places within urbanized areas and other urban places outside urbanized areas.

Family income.—The income recorded was the total income of the past 12 months received by the head of the household and all other household members related to the head by blood, marriage, or adoption. This income was the gross cash income (excluding pay in kind) except in the case of a family with their own farm or business, in which case net income was recorded.

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APPENDIX III
MEDICAL HISTORY AND PHYSICAL EXAMINATION FORMS

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL HEALTH SURVEY

MEDICAL HISTORY OF YOUTH
Parent's Questionnaire

11. How would you describe his or her present health?

1 ☐ Poor 2 ☐ Fair 3 ☐ Good 4 ☐ Very Good 5 ☐ Excellent

IF POOR OR FAIR: What is the matter? _____

12. Does he or she now use any medicine regularly *(not counting vitamins)*?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES:

a. What is the name of the medicine? _____ 2 ☐ Don't know

b. What is it for? _____ 2 ☐ Don't know

c. Did a doctor say he or she should use it?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

d. How long has he or she been using it? _____

18. Has he or she ever had (CHECK YES OR NO IN EVERY LINE).

f. Asthma	1 ☐ Yes	2 ☐ No
g. Hay fever	1 ☐ Yes	2 ☐ No
h. Other allergies	1 ☐ Yes	2 ☐ No

50. Some people are calm, others are nervous *(tense, high-strung)*. Which describes him or her best?

1 ☐ Not nervous at all
2 ☐ Somewhat nervous
3 ☐ Very nervous

53. Would you say he or she eats:

1 ☐ Too much
2 ☐ About the right amount
3 ☐ Too little

54. How fussy an eater is he (she):

1 ☐ Not fussy at all
2 ☐ A little fussy
3 ☐ Very fussy

4. How would you describe your present health?

1 ☐ Poor 2 ☐ Fair 3 ☐ Good 4 ☐ Very good 5 ☐ Excellent

a. IF POOR OR FAIR: What is wrong?_____

6. Do you now use any medicine regularly, not counting vitamins?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES:

a. What is its name?_____ ☐ Don't know

b. What is it for?_____

_____ ☐ Don't know

c. Did a doctor say you should use it?

1 ☐ Yes 2 ☐ No

d. How long have you been using it?_____

30. How often do you have trouble getting to sleep or staying asleep?

1 ☐ Very often 2 ☐ Only from time to time 3 ☐ Never

31. How often do you have bad dreams or nightmares?

1 ☐ Quite frequently 2 ☐ Only from time to time 3 ☐ Never

32. As far as you know, have you walked in your sleep in the last year or so?

1 ☐ Yes 2 ☐ No

33. Do you have acne *(pimples or blackheads)*?

1 ☐ Yes x ☐ No

IF YES:

a. At what age did it start?_____years

b. Do you use any treatment for it? 1 ☐ Yes 2 ☐ No

c. Have you seen a doctor about it? 1 ☐ Yes 2 ☐ No

d. How much does it bother or worry you?

1 ☐ Quite a lot 2 ☐ Some but not too much 3 ☐ Very little

4 ☐ Not at all

HEALTH BEHAVIOR - Youth

11. Do you ever feel tense, nervous, or fidgety?

1 ☐ Yes, often

2 ☐ Yes, sometimes

3 ☐ Yes, but rarely

4 ☐ Never

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL CENTER FOR HEALTH STATISTICS
HEALTH EXAMINATION SURVEY

SUPPLEMENTAL INFORMATION FROM SCHOOL

8. ARE SPECIAL RESOURCES NEEDED OR CURRENTLY BEING USED FOR THIS STUDENT?

2 ☐ NO **(SKIP TO QUESTION 9)**

1 ☐ YES ⟶ IF YES, complete the following only for those special resources needed or currently being used by this youth:

SPECIAL RESOURCE	RESOURCE NEEDED (Check one)			REASON FOR NON-USE (Check primary reason)			
	BEING USED	NOT AVAILABLE	AVAILABLE BUT NOT USED	OVER-CROWDED	STUDENT OBJECTS	PARENTS OBJECT	OTHER (specify)
d. For emotionally disturbed							

9. IN TERMS OF ADJUSTMENT, WHICH OF THE FOLLOWING BEST DESCRIBES THIS STUDENT?

1 ☐ SEEMS WELL ADJUSTED.

2 ☐ SEEMS SOMEWHAT MALADJUSTED.

3 ☐ SEEMS SERIOUSLY MALADJUSTED.

4 ☐ NO BASIS FOR JUDGING WHICH OF THE ABOVE FITS THIS STUDENT.

PHYSICAL EXAMINATION

SKIN

FACIAL ACNE—GRADE

0	I	II	III	IV
0 ☐	1 ☐	2 ☐	3 ☐	4 ☐

OTHER SKIN FINDINGS: 1 ☐ NO FINDINGS 2 ☐ FINDINGS (Describe)

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